

THE INLAND PRINTER

A TECHNICAL JOURNAL, DEVOTED TO THE ART OF PRINTING.

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Written for THE INLAND PRINTER.

THE PRINTING-PRESS.

(Continued.)

BY STEPHEN MC NAMARA.

AFTER years of study and research, after years of trials and privations, which turned him prematurely gray, Columbus left the land of his birth to seek among strangers assistance to enable him to demonstrate the existence of distant lands, as yet unknown. Supplicating the Spanish throne for aid, exhibiting his charts to the court, and explaining his theory of the rotundity of the earth with such force that the queen finally offered to sacrifice her jewels to afford him an opportunity to elucidate his ideas, he was reluctantly supplied with ships and men, and set sail from Lisbon on his memorable voyage of discovery.

Amid unknown dangers in a trackless sea, surrounded by doubts, and fears, and superstition, and threatened mutiny, the intrepid navigator, animated with holy zeal, heroic fortitude and trust in God, pressed on, regardless of threats and oblivious to fear, and planting the cross in the new world returned and laid at the feet of his sovereign trophies of his great discovery.

Americus Vespucci, following where he led the way, explored further, passed beyond the outlying islands, touched the continent, but nevertheless he lacked the heroism of Columbus, and while one was honored by naming the new world after him, the other and more deserving was thrown into prison; another example of man's inhumanity to man.

The experience of the discoverer of the machine press forms a most striking parallel, while the results from each have proved of equal benefit to mankind; one gave a home to freedom, the other to intelligence and knowledge.

Frederich Koenig was born in Eisleben, Germany, April 17, 1774, and to him belongs the credit of designing the first machine press, or, as it was termed at the time, a new method of printing. After years of experiment he became convinced of his ability to print by mechanical means, and sought assistance from his countrymen, but failed; he then repaired to St. Petersburg, Russia, arriving there May 13, 1806, in hopes the government would aid him, but the demand being made that he furnish working models as practical demonstration of his theory, the

very purpose for which he desired aid forced him to try his fortune in London, where he arrived in November of the same year. Here, in connection with a noted printer, named Richard Taylor, he perfected his plans, and sought the help of capitalists. So many unsuccessful attempts had but recently been made, great difficulty was experienced. The amount of money required, and the intense prejudice existing formed barriers which this sturdy Saxon in a strange land was compelled to surmount. That he succeeded in the face of all obstacles, is surprising and thus all the more credit is his due. But that the attempt should be made to give this credit to others, is a shame admitting of no palliation.

Forming an acquaintance with a stationer named J. Hunneman, a man who stood by him through his adversity as well as his success, he was brought into contact with business men, who, while admitting the practicability of his ideas, hesitated to invest capital in the project until the proprietors of the leading papers should give it their sanction. Finally, in March, 1807, he became acquainted with Mr. T. Bensley, through his friend Taylor, and light began at last to dawn upon his enterprise.

From a biographical sketch, supplied by Mr. Fr. Koenig, his grandson, and for which the writer wishes to acknowledge his indebtedness, we quote the following:

6 Frith Street, Soho.

Mr. Koenig:—Mr. Bensley would be glad to see Mr. Koenig and his friend (Mr. Taylor) with him tomorrow evening upon the subject of their former conversation, when Mr. B. will propose the form of an agreement as the first step towards entering upon the Discovery.

Bolt Court, 11 Mar. 1807.

The importance attaching to the invention, and the care with which Koenig guarded his interests, are seen in the following:

6 Frith Street, Soho, 31, Mar. 1807.

Mr. Koenig having discovered an entire new method of printing by machinery, agrees to communicate the same to Mr. Bensley under the following conditions: that if Mr. Bensley shall be satisfied the invention will answer all the purposes Mr. Koenig has stated in the particulars he has delivered to Mr. Bensley, signed with his name, he shall enter into a legal engagement to purchase the secret from Mr. Koenig, or enter into such other agreement as may be deemed mutually beneficial to both parties; or, should Mr. Bensley wish to decline having any concern with the said invention, then he engages not to make any

use of any part of the machinery, or communicate the secret to any person whatever, until it is proved that the invention is made use of by anyone without restriction of patent or other particular agreement on the part of Mr. Koenig, under the penalty of six thousand pounds.

Witness, J. Hunneman.

T. BENSLEY.
FREDERICH KOENIG.

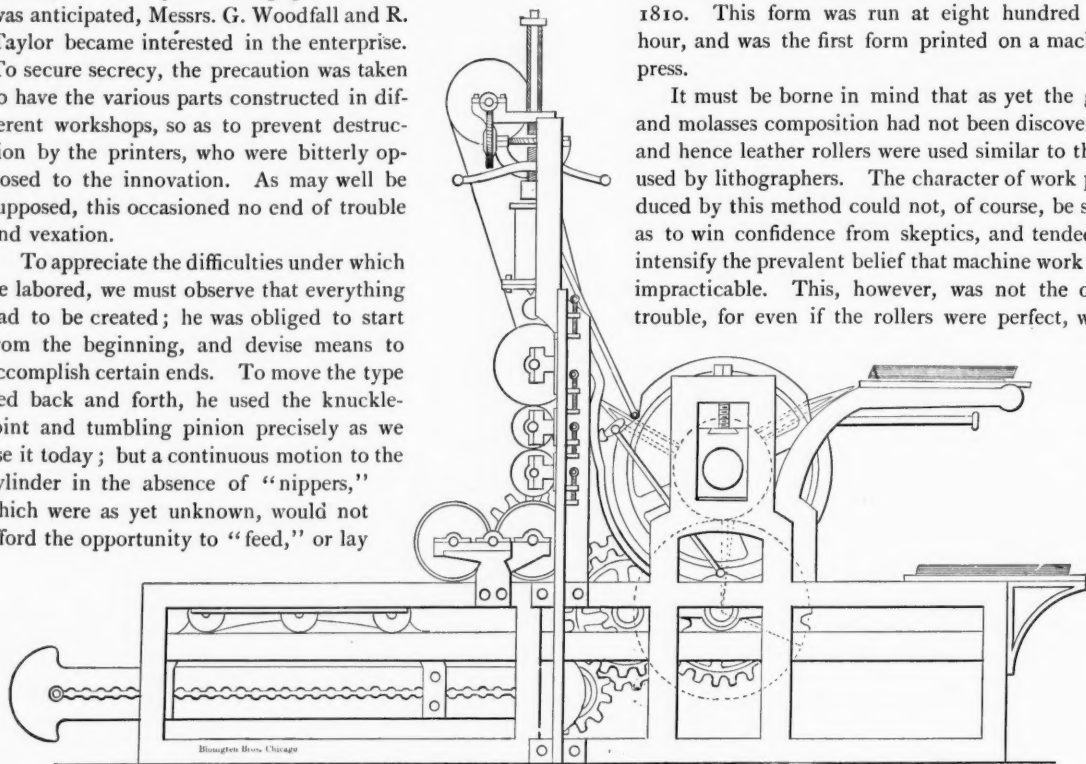
Having obtained the assistance so long sought, he proceeded to construct his machine under contract with Mr. Bensley. The expense being greater than was anticipated, Messrs. G. Woodfall and R. Taylor became interested in the enterprise. To secure secrecy, the precaution was taken to have the various parts constructed in different workshops, so as to prevent destruction by the printers, who were bitterly opposed to the innovation. As may well be supposed, this occasioned no end of trouble and vexation.

To appreciate the difficulties under which he labored, we must observe that everything had to be created; he was obliged to start from the beginning, and devise means to accomplish certain ends. To move the type bed back and forth, he used the knuckle-joint and tumbling pinion precisely as we use it today; but a continuous motion to the cylinder in the absence of "nippers," which were as yet unknown, would not afford the opportunity to "feed," or lay

Morse developed the electric telegraph, almost half a century elapsed before Bell gave us the telephone, and who refuses those mighty minds the credit justly due to each?

The press presented in this number was the *first* machine press constructed. It was begun March 31, 1807, and patented in 1810, but was not put in motion until April, 1811, when Sig. H, three thousand impressions were printed of "The Annual Register of Principal Occurrences," 1810. This form was run at eight hundred per hour, and was the first form printed on a machine press.

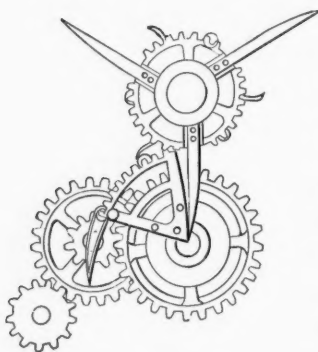
It must be borne in mind that as yet the glue and molasses composition had not been discovered, and hence leather rollers were used similar to those used by lithographers. The character of work produced by this method could not, of course, be such as to win confidence from skeptics, and tended to intensify the prevalent belief that machine work was impracticable. This, however, was not the only trouble, for even if the rollers were perfect, what



KOENIG'S CYLINDER PRESS, 1811, THE FIRST PRINTING MACHINE.

the sheet, hence an intermittent or stop motion was applied. To accomplish this, the peculiar train of gearing shown herewith was used.

On the outer end of the cylinder shaft was placed a "horn" gear, which divided into thirds; directly below a pinion, to which was bolted a sector, moved the cylinder one-third of a revolution at each full turn made by itself; thus time was afforded to feed the sheet to one of the three blankets, which was done by points fastened thereon, in exact imitation of the hand press. Objections and criticisms raised here must be declared out of order. Why Koenig used a cylinder with three printing surfaces instead of one, and a full turn, as in the present "stop," is not for us to decide. When



would they avail unless supplied with an even flow of ink? The fountain was a common trough of wood, in the bottom of which was a narrow slot, formed by two strips of iron, one of which was adjustable. A plunger fitted the inside snugly, and was gradually forced down on top of the ink by a worm and spiral gear wheel. The ink was thus forced out through the opening, and received by the distributing rollers; these were of different diameters, and had a lateral motion and direct gear, precisely like the present style of rack and screw press.

The fundamental principles of presswork are the proper application of color and impression; the condition of the rollers determine the one, the mechanism of the press the other. To perfect these two would be too much to expect of one man, but that Koenig started in the right direction is at once evident by comparing the drawing of his press with the presses in use throughout the world today. By this crude and imperfect means was the first machine printing introduced, the iron roller and straight-edge by which we today regulate the flow of ink being then unknown.

(To be continued.)

Written for THE INLAND PRINTER.

ELECTROTYPING.

BY E. B.

(Continued.)

THE next step is to transfer the mould to the coppering bath, where diluted alcohol is poured over its surface. After being drained of this it is next laid flat, and subjected to a solution of blue vitriol. Fine iron filings are then dusted over the fluid that covers the mould, and quickly spread by means of the camel-hair brush. A stream of water is passed over it, which washes off all residue matter, and the entire plate is found to be covered with a thin film of copper that gives the mould a fine metallic effect.

Everything is now ready to submit the mould to the workings of that wondrous and subtle agency, electricity. A large, deep, oblong wooden vat, lined with lead, is filled with a solution of sulphate of copper. On top, near the sides, run two very bright parallel copper rods. From one of these hang large slabs of copper, 18 by 24 inches, or thereabouts, along the entire length of this depositing battery, as it is termed, the copper slabs or *anodes* being completely immersed in the solution. On the other parallel rod is hung the mould, also immersed in the fluid, facing the *anode*, perhaps in company with other moulds that have been similarly treated. The connections are then made perfect. Now, there is a choice to receive the electric current from the large Smee battery, or from the powerful dynamo machine. The former, however, is employed for the purpose of giving a more lucid explanation of the *galvanic* current. The large copper rod containing the *anodes* in the depositing battery is connected with the positive pole, or zinc element, in the generating battery; this rod connects the moulds, or *cathodes*, with the negative pole or platinized silver element.

As soon as the connections are made a current is at once "set up;" the acid solution takes immediate effect upon the zinc element, absorbing oxygen and forming sulphate of zinc. The current, passing from the zinc over the conducting wire into the depositing battery at the *anodes*, dissolves a portion of the copper passing through the solution, and deposits the liberated metal on the face of the moulds. Returning along on the conducting wire to the negative or silver plate of the generating battery, it liberates hydrogen. In a very large combination Smee battery, in full working order, the fluid fairly boils as the hydrogen is liberated on the surface of the negative plates.

As a rule, twelve or fifteen hours are required to form a shell sufficiently thick for practical use. Employing the *dynamo-electrical* machine, the same may be accomplished in about four hours; hence the advantage of the machine over the battery, as it turns out three times the amount of work in the same period of time.

Supposing that the mould is placed in the depositing battery at six o'clock in the evening, at eight o'clock the following morning it is taken out, when the shell is found to be sufficiently thick. Boiling water is then poured over the deposit, and as soon as heated it is readily stripped from the mould.

The next step made in the progress of the "electro-

type," as we shall designate it, after removing the shell from the mould, is to have it trimmed of superfluous copper, and the back of it tinned. This is accomplished by first brushing soldering fluid over the backs of the shells, and covering each one with electrotypers' tinfoil. The shell is then placed on a "trimming tray," face downwards, and submitted to heat, until the tinfoil is melted and flows evenly over the shell.

It is now ready for the "backing tray," a good-sized, smooth, cast-iron tray, capable of holding a large number of shells, and having a rim a quarter of an inch thick, which is usually heated by immersing it in molten type metal, until the particles used for backing melt on the tray. The "electro" is then removed to a perfectly level cast-iron stand, the tinned shell being placed on the hot tray, face downwards, with others, and molten type metal poured over them evenly until it is full, and then allowed to cool, the cooling process being hastened by means of a steam blower. The plate is now lifted from the backing tray before it is thoroughly cooled, and scrubbed with brushes in hot kerosene, thereby removing all traces of the wax. After cooling, the cast is taken to the circular saw, and all the different shells removed. It is then handed over to expert "finishers," by whom it is properly straightened. After these manipulations it goes through a steam planer, by which the plates are cut down on their backs to a uniform thickness. After being submitted to the finishers again for further inspection, it is passed through a powerful steam "shaver," and then the "electro," which we have followed through the several processes, is ready for "wooding;" this is accomplished by it being nailed or screwed to a wooden block of the same dimensions as the plate, and type high, which completes the process, and the work is then ready for delivery to the printing office.

Many features that would doubtless prove interesting to the readers of THE INLAND PRINTER have necessarily been omitted from this and preceding articles, as to enter into all the minutiae connected therewith would exceed the limits of the space assigned.

THE POWER OF THE DAILY PRESS.

THE power and resources of the daily press were never more pointedly illustrated than in the prompt and accurate election returns furnished by four of the great morning dailies of New York city on the close vote polled for presidential electors in the Empire State. Within forty-eight hours after the polls were closed, the *Herald*, *World*, *Times* and *Sun* had full returns from every county in the state, and the result was figured out with a certainty that no doubt nor questioning could shake. While rival political managers were claiming the state with equal vehemence and the Associated Press was giving incomplete and garbled returns, these great newspapers had their truth seekers at work in every county and precinct of the state, and long before the official count was begun they had the votes thoroughly canvassed and accurately footed up. There are few secrets that an enterprising newspaper cannot quickly get to the bottom of when once its curiosity is fairly aroused.

"All editors of experience and ability," says the *Herald and Presbyter* "have found great difficulty in securing writers for their columns who establish a reputation among their readers. The difficulty is not want of ability or knowledge, but the lack of taste and tact for the work. There are many persons who are logical and respectably rhetorical who attract no attention." But the *Herald and Presbyter* might have added that there are many editors of experience and ability who are not looking for writers who will themselves establish a reputation. In fact, many editors of experience and ability consider it very poor policy to engage men who may become too valuable and independent. The only place for a man who wishes to attract attention on most of the large dailies is in the chair of the managing editor. If he is unable to buy his way or scheme his way into such a position, the best thing he can do is to buy a country paper and write it into glory. There are, by the way, some little difficulties to be overcome in the latter plan, such as the competition of an hundred thousand skillful writers through the country, but the young man who wants to attract attention must take his chances with the rest of the world.—*American Journalist*.

Written for THE INLAND PRINTER.

NOTES ON WOOD ENGRAVING.

BY S. W. FALLIS.

III.

FOLLOWING the St. Christopher cut of 1423, there were numerous single engravings, such as the Annunciation, the various Saints, and wood cuts of devotional subjects, of a period probably anterior to the invention of book printing by Gutenberg. They are all executed in a rough and unskilled manner, many being colored by hand. It is altogether probable that most of these cuts were executed for monks, for distribution among the common people, as helps to devotion, each monastery having engraved the figure of its patron saint.

The next step in the progress of the art of wood engraving subsequent to the production of the single cuts above referred to, was the application of the art to the production of those works which are known to bibliographers by the name of Block Books, the most noteworthy and ancient of which are the *Apocalypsis*, the *Historia Virginis* and *Biblia Pauperium*. The first is a history of the life and revelations of St. John, the evangelist; the second a history of the Virgin; and the third represents important passages in the Old and New Testaments.

According to Sevi, the "*Biblia Pauperium*" appeared in 1432; the "*History of the Virgin*" in 1433; the "*Apocalypsis*" in 1434. There were also several other Block Books of an early day, and by some writers claimed to bear the same or more antiquity than either of the others above referred to. But the positive proof of these claims is deficient to a degree of serious doubt, while for good and plausible reasons, simplicity of style and execution, Jackson places the "*Apocalypsis*" as the earliest production of the three. He describes it (by citing authority) as a thin folio, consisting of fifty wood engravings, with explanatory text, either within an oblong border, or a single line within the border surrounding the engraving proper. The size of the

largest cut is about ten and five-eighths inches high by six and seven-eighths inches wide. The cuts are printed on one side of the paper only, so that two leaves pasted together, back to back, form a single leaf. The cuts are numbered, or paged, as it were, by the letters of the alphabet, beginning with A as page 1, etc.; and when the letters of the alphabet are exhausted, the order of the pages are designated by other marks, such as "et cetera," "vs," etc., etc.

The greater number of these cuts are divided with a horizontal line near the center, making two compartments to each cut. Some, however, employ a full page to illustrate a single subject.

Most of the designs are drawn with great vigor and expression, and the engraving is done in the simplest possible manner, the most difficult part of the engraver's work being the cutting of the lettering.

The following cut, Fig. 3, is a reduced copy of the first



Fig. 3.

cut. In the top section, St. John is represented as addressing four persons, three men and one woman; and the text at the top tells us, "By the preaching of St. John, Drusiana and others are withdrawn from their Idols."

The letter A above the outstretched hand of St. John indicates that this is the first cut of the series.

In the lower half or section St. John is represented as baptising Drusiana, and to the right are several figures with axes, etc. The text tells us, "Worshippers of Idols Watching the Saint's Proceedings."

The balance of the cuts are similar in design and execution, treating the various subjects with the same general expressiveness.

The style in which the cuts of the "*History of the*

Virgin" are executed, show unmistakably a more advanced state of the art than is shown in the "Apocalypse," supplementing, as it does, the simple line or fac-simile with a considerable amount of shading and perspective engraving.

Of all the Block Books, that which is commonly called "*Biblia Pauperium*" is most frequently referred to as a specimen of the early printing from engraved wood blocks, which preceded typography or printing by means of movable characters or types.

According to Hennekin there were five different editions of the *Biblia Pauperium* with the text in Latin; four of them each contain forty leaves, printed on one side only from wood blocks, by means of friction, and differing in a very trifling degree. The fifth edition contains fifty leaves, printed in the same manner, but apparently designed by different artists. Besides the above there are two different editions, also from wood blocks, with text in German. One with date of 1470, the other 1471 or 1475, the last numeral appearing as like a 5, as a 1. There are also two editions, one Latin, and one German, with text printed from movable types, by Albert Pfister, at Bamberg, about 1462.

The *Biblia Pauperium* is also a small folio of forty leaves, impressed on one side only, as in the "Apocalypse." The order of the first twenty pages are indicated by letters of the alphabet, from A to V, and the second twenty pages are indicated by the same letters, having a distinguishing mark before and after the letters, thus: .A.

The following cut, Fig. 4, is a reduced copy of the

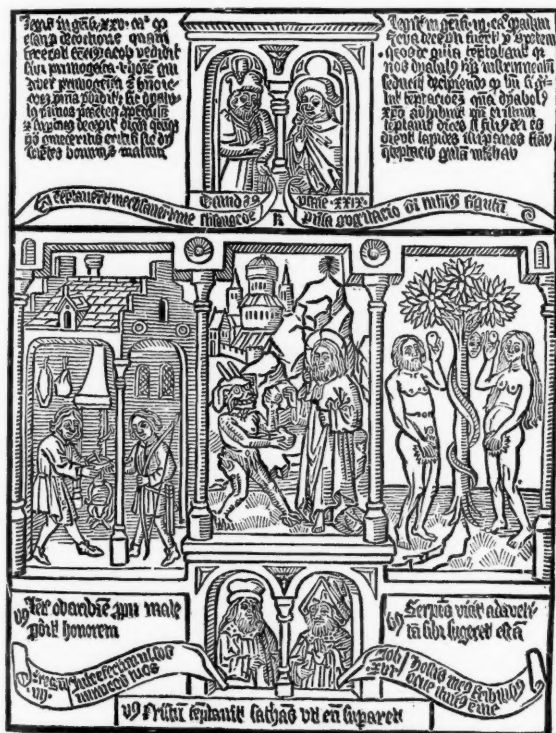


Fig. 4.

eleventh page, and will afford the reader a comprehensive idea of the arrangements of subjects and explanatory texts. On each page are four portraits, two at the top, and two at

the bottom, representing the prophets and other holy men, whose writings are cited in the text. The middle portion of the pages between the portraits being divided into three compartments, each of which contains a representation of a subject from the Old or New Testament. The pages differ in a slight degree. The fourteenth page has only two subjects, represented in the center.

The greatest portion of the explanatory text, at the top on each side of the portraits, at top and at the side of those below, is a Leonine or Latin verse; a similar verse beneath the portraits at the bottom forms the concluding line of each page.

Scripture texts and explanatory sentences referring to the subjects in the compartments appear on the scrolls. Without entering into further description or translation of the text, the reader will readily translate the meaning of each in his own mind and comprehension.

The following cut, Fig. 5, is a full-size fac-simile of the



Fig. 5.

section and two portraits at the top of page eleven, of which a reduced copy is shown in Fig. 4.

(To be continued.)

THE LARGEST CIRCULATION.

The paper with the largest circulation in the world is the *Petit Journal*, of Paris. It now circulates 750,000 copies per day. Its director, Mr. Hyppolite Marinoni, is the inventor of the Marinoni perfecting presses. He was originally a cattle-herd. When he first started there was not one perfecting press in France, and no newspaper would buy one of him; but he secured the contract for printing the edition of some of the papers at a certain price. Among the papers he printed were the *Figaro* and *Petit Journal*. The latter then had a circulation daily of 100,000 papers. It ran behind in its bills with Marinoni, and to save himself from loss he had to take hold of the paper. He spends \$100,000 a year for advertising, and is confident that within two years he will sell 1,000,000 copies per day. He is allowed \$100,000 per year for printing the paper. Not less than \$1.20 per line is received for advertisements in any part of the paper, and as high as \$8 per line for one insertion is charged. Once as much as \$10,000 was paid by DeLesseps for an article on the first page announcing the issue of the Panama Canal loan. The paper is unsensational in the extreme, but pays close attention to news.

THE TRAMP JOURNALIST.

A familiar sight in the composing rooms throughout the country is the tramp printer. Seedy, unshaven, dirty, ill-smelling and blear-eyed, rank with the odors of beer, rum and free lunch, the tramp printer is anything but a pleasant object to contemplate. Yet oftentimes this man is possessed of ability which should make him successful in his trade. In fact, it is the melancholy truth that the tramp printer is, in his lucid intervals, among the best in the composing room. But his hand is palsied and his character is destroyed in his own excesses, and he drags out a miserable existence, drifting from one job to another, and is finally buried at the expense of the town where he happens to die. No one mourns his loss. Even those who knew him best experience a sort of a sensation of relief when they hear that he is safely under ground.

It is no credit to the journalistic profession to know that there are just such men in its ranks, men oftentimes of more than ordinary ability, but who, through some lack of mental balance, are never able to stay in a position for any length of time, who cannot resist the charms of inebriety, and who have only the half contemptuous pity of their fellows when they might have respect.

Compositors are often spoken of as a drunken set of men, as a class. So journalists are too often regarded as dissipated and disreputable when they really deserve no such stigma. It is the tramp printer and the tramp journalist who destroy the reputation of their sober and industrious fellow workers. It is their unreliability, drunkenness and all the evils consequent upon it which smirches the fair fame of two professions, and injures the reputation of hundreds of worthy men.

Thanks to the organization of typographical unions, the tramp printer is rapidly becoming a thing of the past, but no power on earth has yet been found which can eliminate the tramp journalist, though fortunately they are being driven out of New York by the sharp competition which demands the best work and only the best. A few still linger about Park Row and subsist on odd jobs picked up from various papers, and on stray dimes "borrowed" from credulous acquaintances. They soon become well known, however, and the respectable either avoid them or toss them the loan as they would give a copper to an importunate beggar, as a cheap way in which to purchase freedom from their society.

A thorough type of the tramp journalist came under our observation the other day, and a pen picture of him may not be uninteresting. Imagine a dumpy, bloated figure like a beer keg on legs, a fat, puffy face plentifully besprinkled with pimples, cunning rat-like eyes, wrinkles which show both age and dissipation, gray hair which carries with it no respect, and age which has neither dignity nor sense. This apology for a man is clad in a shabby suit of clothes, besmeared with grease and beer, linen which knew the laundry in the dim distant past, and you have the general outward appearance of the man.

He hangs persistently on the outskirts of journalism, though it is evident he cannot make a living out of it. His brain, at no time remarkable for strength or brilliancy, is sodden with beer. It is said that he has occasional intervals of decency, and displays a certain kind of ability which the veriest dough-head might pick up through so long a quasi-connection with the profession. But as a general thing his language is adorned with the profanity of the bar-room, and his manners are such as would shame a Bowery rough. His only claim to recognition as a journalist is the fact that long, long ago, when in the first flush of youth, when his intellect was clear, and when, presumably, he had not acquired the speech and carriage of an habitue of a Chatham street dive, he belonged to the famous "Pfaff's Bohemians," of which the brilliant Franklin Ottarson was the leading spirit. Since that time he has been connected in various capacities with almost every paper in New York. He has written everything from advertisements to blood-and-thunder stories, and alleged poems. His intervals of work were followed by long sprees, during which times he would borrow from everybody he could induce to lend, with never an intention of paying back the loans. He is now earning a miserable pittance in a nondescript position on a nondescript daily paper which died some time ago, and now presents the disgusting spectacle of a journalistic corpse revived by the galvanic power of money, and precious weak galvanism

it is, too, in this case. He has held this position longer than usual, but it is only a question of time when he will go on one of his sprees and again become a burden on his fellow workers. A gentleman who has known him for years says that another of his protracted drunks will kill him. In such a case he will probably be buried by the press club, and though it seems an almost brutal thing to write the fact, the only feeling among the men who subscribe to see him decently buried will be a sense of relief that he is at last out of the way forever. It is certainly not a pleasant picture to look upon, and it is presented through no feeling of enmity toward the miserable man referred to. He is simply a type of a class, and as such he stands as a warning to the younger members of the profession. There is always danger of a young man degenerating into a tramp. He feels secure in his own strength. He can have his fun tonight, suppose he does awake in the morning with aching head and brain unfitted for work. If he loses his position he can easily get another. But if he looks forward to the certain result or pauses to note the miserable object who has already reached the end of the road, if he has sense he will appreciate the warning and mend his ways. Of course there are occasions where change is desirable and necessary. But, in ordinary cases the rolling stone in journalism, as well as in other professions, not only fails to become self-supporting, but he degenerates into that most disreputable of all objects under the sun, the tramp journalist—a creature which is a disgrace to his profession and his fellow man.—*The Journalist.*

MEMORIAL TO GUTENBERG.

Eltville, a town near Weisbaden, takes a justifiable pride in showing a house in which it is said Gutenberg once conducted a printing-office. Sure of their tradition, the Eltvillians have just affixed a marble tablet commemorative of Gutenberg on the building. Dr. Van der Linde writes that the first dated book printed at Eltville is a Latin-German dictionary of 165 quarto pages; that Heinrich Bechtermunze, a relative of Gutenberg, commenced the printing of the work, but died before it was completed, the printing thereof being continued and finished by Nikolaus Bechtermunze and Wigard Spiess, on November 4, 1467. The same author further states that the Eltville dictionary is printed with the same types as the "Catholicon" printed in 1460, at Mayence, by Gutenberg; and that the brothers Bechtermunze learned the art from Gutenberg and furnished their office with material which had been used by him. So that, if Gutenberg did not work in person at Eltville, his materials that he had used were worked with in the good old town now so proud of doing honor to his memory.—*Printers' Circular.*

AN EDITOR IN A WHEELBARROW.

A score of union printers, with colored torches, swarmed around Franklin's statue at 7 o'clock last night and hooted the *Tribune* with great enthusiasm for five minutes. Then a fleet-footed type-setter dashed out of a small hotel on Chatham street, trundling a big wheelbarrow in which was a great pile of the *Boycotter*. On top of the pile sat Mr. Parker, one of the editors of the paper, wearing a broad smile. He dashed with a rush into the crowd about the statue, and flung the *Boycotter* right and left with prodigal recklessness. Everybody got a copy.

"What's this, anyway?" cried two policemen who rushed over from the City Hall Park to investigate the situation. A lively type-setter held up the answer where everybody could see it. It was a big white placard with this printed on it:

"All claim it, but Big 6 did it, and don't forget it."

The fleet-footed type-setter who had hold of the wheelbarrow, said he was Jack Williams, a typo on the *Star*, and that he bet a wheelbarrow ride that Blaine would go to the White House. "I'm going to give the winner a ride now," he added, pulling out a permit from Superintendent Walling. Then he seized both handles of the barrow and trotted entirely around the park with the smiling editor, while the score of typos held their torches high up in the air and cheered steadily. They gave a big final cheer in front of the *Staats-Zeitung* building, and then went into a beer saloon and drank success to the Typographical Union No. 6. —*N. Y. Sun.*

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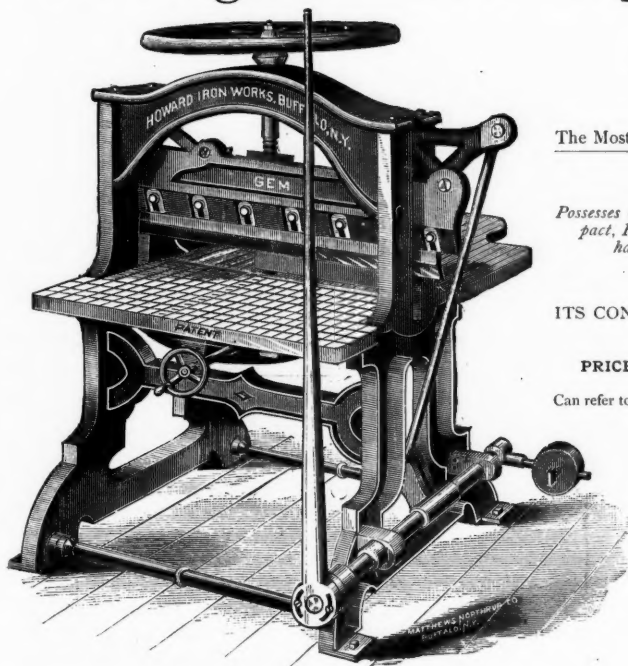
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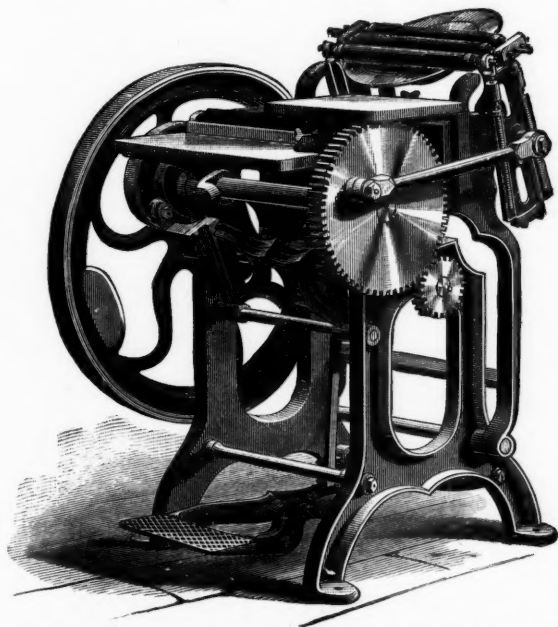
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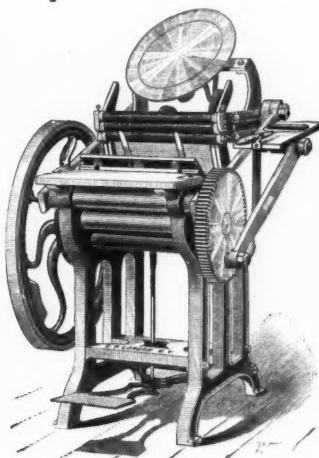
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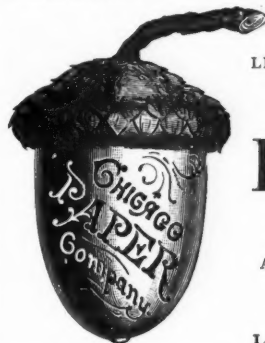


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One dollar and a half per annum in advance; for six months, Seventy-five Cents; single copies, Fifteen Cents.

THE INLAND PRINTER will be issued promptly on the tenth of each month. Subscriptions, payable in advance, may be sent to the Secretary by postoffice order or in currency at our risk.

THE INLAND PRINTER will spare no endeavor to furnish valuable news and information to those interested professionally or incidentally in the printing profession, and printers throughout the West will confer a great favor on the Editor of this Journal by sending him news pertaining to the craft in their section of the country, particularly individual theories and experiences of practical value.

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CHICAGO, DECEMBER, 1884.

KIND WORDS.

WE desire to return our sincere thanks for the many kind words expressed in our exchanges and by our subscribers in behalf of THE INLAND PRINTER, and assure them one and all they are duly appreciated. We may, perhaps, be pardoned for our vanity in stating that the first expression of dissatisfaction regarding it has yet to reach this office, while the renewals by our old subscribers, almost hourly received, invariably contain words of warmest commendation. It certainly gratifies us to make this statement, as we have reason to believe it will prove equally gratifying to our readers to learn that such is the case. Friends, continue to do your duty, and we will *try* and do ours, and in no way can you do so in a more acceptable and effective manner than by contributing to its columns, or sending for publication items of information which will prove of value to the craft. Expression of opinion from employers or employees will be equally welcomed.

PROJECTED SCHOOL OF PRINTING.

WE learn from some of our exchanges that the Belvidere Seminary, Belvidere, N. J., will shortly introduce industrial education, beginning with the department of printing and journalism. It is stated that the principals, the Misses Bush, submitted their plans to Mrs. Wendell Phillips, and received her permission to name the institution, when established, the "Wendell Phillips Memorial Industrial School." The details of the plan have not yet been published, and we are consequently unable to present them to our readers.

There are some features, however, in connection with the establishment of this and similar institutions which it would be well to keep in mind before venturing an indorsement, yet which are seldom, if ever, taken into consideration. Public opinion is too prone to jump to conclusions; to sympathize on the spur of the moment, and allow a false gallantry to warp its judgment without first duly weighing the merits of such schemes, or if successful, their ultimate effects on society. It is not all gold that glitters, and while the prospectus may seem an inviting one, their experience will prove that, in this case at least, anticipation and realization will not correspond. Under these circumstances a few suggestions, which we trust will commend themselves to the common sense of our readers, may not be unacceptable.

The great objection to many of these so-called training schools is that instead of turning out proficient, they but help to swell the army of incompetents which already curse the country, and which form so powerful an agency in lowering the standard and depreciating the wages of the American mechanic. But apart from these considerations, woman's persistent competition in a field of labor to which she should be a stranger, must ultimately redound to her injury, for it should not be forgotten that man is woman's natural *protector* and *provider*; and it is more essential to the welfare of the community that *he*, as such provider, often dependent only on his skill and labor acquired by years of study, should earn enough to support his wife and family, than that a member of the opposite sex should barely earn enough to support herself. Suppose, for example, the employment of a girl at manual labor unfitted for her sex, throws out of work a father of a family with *half a dozen daughters* dependent on his labors for support, is society at large the gainer thereby? Yet this is just what woman's employment in a printing office, and the continually handicapping of the skilled workman, as a rule, secures.

But let us look at the matter from another standpoint. It will certainly not be claimed that female *job printers* will graduate from Belvidere sooner than the average male apprentice does from a printing office. Suppose a girl goes to the seminary at fifteen years of age. Her board and instruction will cost at least \$6 per week, a very low estimate, in round figures \$300 per annum, or \$1200 for four years. Now, how many mechanics can afford to *educate* (?) their daughters at this outlay? How many orphans or friendless women can furnish the necessary funds to experiment on, or how many parents blessed with the world's goods are going to throw away \$1200 on any such

nonsense? It may be answered, however, that the contemplated school of printing will be in a great measure self-supporting, and that the pupils will be the recipients of the proceeds of part of their own labors. In what manner or through what agency? How many firms are going to send their orders to an out-of-the-way country seminary for girls to experiment on, when they can get them executed at home under their own supervision? No, no, the self-supporting theory is a humbug, and those who dance must pay the fiddler.

Woman's *natural* ambition and condition is *wifedom* and *motherhood*. Whether as the wife of a millionaire or mechanic, the *home circle* is her especial sphere, and her highest aim should be to qualify herself for these responsible positions. Were these truths realized and lived up to, we should have fewer slovenly housekeepers; fewer women who thump and bawl at a piano when they should be darning their husband's stockings, or who devote their attention to foreign missions while their own offspring can discount any heathen that ever met the gaze of a disgusted missionary.

Young ladies, take our advice: prepare yourselves to be the life partners of good, true men, who are able and willing to earn enough to keep their wives and families in comfort; those to whom your presence will make a heaven of the humblest home, where it will be your proud privilege to put the little "living" forms with which God may bless you, into their trundle beds, instead of wasting your lives and energies in a printing office, preparing "leaden" forms for the cold, uninviting bed of a printing-press.

A WORD WITH THE BOYS.

IT should be the ambition of every father to so train his sons that they will become honored and respected members of society, no matter what the nature of their calling or financial position. It should be the aim of every son to follow the counsels of his parent, so that these aims may be realized; and it is to the boy of today, the adult of the future, we have a word to say. Young man, your future depends in a great measure on your *own* conduct and exertions. Remember, there is no royal road to learning. If you commence life aright, with a laudable desire to learn and excel, to improve your leisure and avail yourself of every advantage offered, the chances are the goal of your ambition, if within the bounds of reason, will be reached. If, on the contrary, you prefer to become the teacher instead of the scholar; think it manly to insult your superiors in years and experience; affect a bravado where docility is requisite; refuse the advice of those who advise for your own benefit, it is safe to infer that you will become a recruit in the grand army which carries "*failure*" on its banners, and as you have sowed to the wind you will assuredly reap to the whirlwind. The great trouble with the rising generation is, that they want to be men before they are well developed boys; know, or rather *think they know*, all that can be taught, and that it is a sheer waste of time to commence at the first round of the ladder.

Let us take two boys, for example, entering the race of life together. One is attentive to business, puts his mind on his work, is anxious to learn, realizes that civility costs

nothing, avoids slang, is courteous and obliging to his superiors, and in general makes his presence and companionship a pleasure. The other acts as though it is *smart* to be offensive, affects to know more, or at least, as much as his instructor, "don't care whether school keeps or not," chaffs at restraint, looks with contempt on details, who feels that if his employers are not suited he "can go somewhere else"; and it is safe to affirm that while the former will become master of his profession and an ornament to society, the latter will become a ne'er-do-well, a nuisance to himself and to everybody with whom he is brought in contact. Boys, think of this. You may laugh at our advice today. You certainly will not do so when regrets are too late; when lost opportunities cannot be recalled; and when you realize to your sorrow that what you now term the "good luck" of those more fortunate was the result of following the same line of policy which we have laid down, and which you affected to despise.

THE LABOR BUREAU.

THE appointment of Mr. John Fehrenbatch, government steamboat inspector at Cincinnati, to the charge of the National Bureau of Labor Statistics at Washington, is one which we thoroughly indorse. Mr. Fehrenbatch was for years the president of the Machinist's and Blacksmith's International Union and editor of their monthly journal. He is a man of marked ability, a thorough trades unionist, and a courteous gentleman, who is eminently qualified for the responsible position to which he has been appointed. We speak from a long personal and intimate acquaintance, and feel satisfied he will prove to be the right man in the right place.

STANDARD MEASUREMENT.

IT may be said without a violation of truth that practically there are no two foundries in the United States whose body types, either in depth or width, are cast by the same standard. This lack of uniformity has not only been a source of annoyance and loss to the majority of proprietors but too often a bone of contention between employer and employé. How many strikes, for example, have been caused by the purchase of type *below* the recognized standard? How many jobs spoiled by the use of sorts obtained from other makers than those from whom the font was originally procured.

But while the disadvantages of the present system, each type founder being a law unto himself, have been experienced by nine printers out of ten, even in our larger cities, it is the *country printer* who feels them most keenly, because he is most frequently victimized. A hurried job of importance is received; sorts, most likely caps, figures or leaders, are lacking to complete it. If a printers' supply depot is in town, and the needed sorts are in stock, which is very seldom the case, they are gladly accepted and no questions asked, we suppose on the principle that beggars should not be choosers, though the chances are the purchaser will find to his disgust that they do not justify with the material on hand. But the discovery avails nothing. Necessity knows no law. He cannot make use of the advantages possessed by those living in metropolitan

centres, go from one foundry to another; neither can he await their arrival by express, so he makes the best of a bad bargain, takes what he can get; and when this experience is repeated half a dozen times, finds a museum on his hands, with almost as many sort boxes as there are boxes in the case. A circumstance which came under our observation a short time since proves that even the best circumstanced and regulated offices are liable to be caught in the lurch. An addition of twelve pages to a rate sheet, set in long primer gothic, was required in a "rush," and necessitated the purchase of sorts, when it was found, that through some hocus-pocus, the newly set pages were more than a pica shorter than the standing pages, and as a consequence the job was delayed until the needed sorts could be secured from the East.

We are well aware, however, that there are many and serious obstacles to the adoption of a uniform standard. The big "I" and little "v" doubtless furnishing their full quota; the expense of providing new matrices; the hue and cry raised by establishments opposed to the innovation; the difficulty of profitably disposing of the stock on hand, etc., etc., but despite all that can be offered, we insist the end would justify the means, and that these and similar objections would be overshadowed by the general and permanent advantages ultimately conferred on the craft at large.

But it is doubtful if any such view will be taken of the situation by those who alone can remove the evils complained of. That selfishness is at the bottom of the prevailing system is a self-evident fact, though it is a short-sighted selfishness at best. Today it may redound to the interest of a certain establishment, and tomorrow militate against it, so that honors are easy, and it is questionable if any firm or foundry is the gainer in the long run.

In the absence of such a standard, we desire to call the special attention of our readers to Mr. Samuel Rastall's system of type measurement, which has been adopted by the International Typographical Union. According to his plan, the alphabet is the *basis of measurement*; twenty-five letters of the lower-case alphabet (omitting z), together with two ems of the body of the type to be measured (which is the estimated number of spaces used in converting the twenty-five letters into words), is regarded as a *unit*. The space in ems occupied by the alphabet is multiplied by forty; the product will give the space in ems which one thousand letters, and the necessary spaces for converting them into words, will occupy. Of course, the "leaner" the type, the less space forty alphabets will occupy. On this plan, the same piece of copy which will fill the one thousand measure in one font of type, will also (allowing for unavoidable variations in spacing) fill the one thousand measure in every other font of type, large or small, "fat" or "lean," and it is thus a just labor basis in solid matter. Under this system proprietors would pay, and compositors receive equal remuneration, *according to the actual number of type lifted*, regardless of the varying character of the type measured. The method is elastic. It increases as the type is "fat," and shrinks to adapt itself to "lean" type, but always represents a uniform and unerring amount of labor in solid matter.

It will thus be seen that while our type founders adhere to a custom which has been, which is, and which, so long as followed, will continue to be a source of vexation and annoyance, Mr. Rastall has developed a system the adoption of which, though it does not remove the evils referred to, will secure to the compositor at least even-handed justice, and remove all existing causes of complaint, so far as measurement is concerned, both in book and newspaper offices.

HINTS TO APPRENTICES.

WE now turn our attention to the locking-up of illustrated periodical and catalogue forms, which present more difficulties and perplexities to the novice than a form of straight book-work.

Where cuts are plentifully interspersed with the reading matter, more especially when the reading matter runs down one or both sides of the cut, close attention should be given by the lock-up to the justification of the same, as it not infrequently happens that either the compositor or the make-up has too little or too much filling-in around the cuts, which would mar the symmetry of the form if allowed to pass unrectified. Each page should be carefully tested for inequalities of justification, and sometimes a liberal use of cardboard will be found necessary, especially if the pages have borders around them. When pages of this description are not properly justified, the leads, slugs and spaces have a tendency to work up on the press, and cause endless annoyance and trouble to the pressman, who will have to stop the press after every few impressions in order to push down the material which blackens and spoils the sheets.

In preparing for the press a form of pages with borders and running heads, the lock-up needs to watch closely each page, to see that head-lines are at equal distance from the border in every instance, for if not correctly spaced perfect register on the press is impossible; to see that corners and rules join nicely, or, if rules with mitered ends only are used, that the miters close up perfectly; to see that the furniture is exact in each section of the form, so that the trouble of getting the form in register when on the press may be avoided; to see that the form is perfectly square when locked up, and that nothing "binds;" that there are no "crossed leads" or other minor causes of trouble which are liable to be overlooked, but which manifest themselves at the most undesirable moment.

In illustrated catalogues the pages are liable to vary in width or length, on account of the size of the cuts or the amount of matter it is necessary to get into each page. A good make-up would see that all these pages were made to even picas in width, in order to save trouble in making up the furniture; but it has sometimes fallen to our lot (and we do not suppose for a moment that we stand alone in this respect) to make up a form in which not more than four pages were of one measure, while the remainder varied from the regular measure of the job to the extent of from a lead to five or six picas. In a case of this kind the lock-up has not only to make up different furniture for the backs and gutters of the form, but has to measure each page to find out how much it varies from the standard measure;

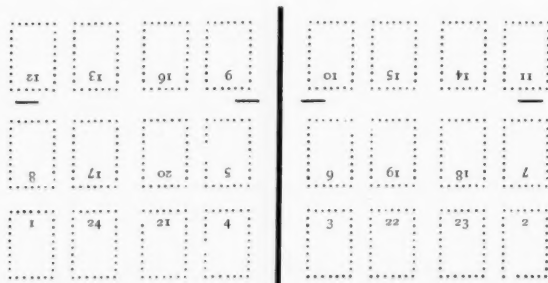
while, if made up to even picas, he can tell at a glance how many picas or nonpareils he will have to subtract from his furniture to accommodate the wider pages, thus saving much valuable time.

When a catalogue or pamphlet makes only two or three sheets, all to be inserted, in order to get an even margin to the pages all through when trimmed, allowance should be made in the gutters of the forms for the thickness of each sheet inserted; thus, the first sheet from the center should have a lead or two more than the center, the second a lead or two more than the first, and so on.

Forms that are made up partly of type and partly of plates, need a liberal use of the straight-edge, if a good register is a desideratum. In making electrotype plates, the moulds are liable to shrink from atmospheric influences, and the face of the plates will sometimes be a trifle narrower than the face of the type page. If the plates are old the wood bases may be shrunken, and the furniture will need regulating accordingly. When a form is in duplicate, one portion—the original—being in type, and the duplicate being plates, it is better for both the pressman and the lock-up to have the plates in one half of the form, and the type in the other. Mixing of type-pages and plates should always be avoided if possible.

If a job has to be run in two or more colors, the same furniture should be used for each color, except when borders only, or borders and head-lines have to be in one color, and the body of the job in another. By using the same furniture for each form in two-color jobs without borders, an almost perfect register can be obtained, provided the pages have been made up with reasonable care. It is well, however, to try each form before sending to press, with a sheet printed from the previous form, to make sure the lines, words or figures will strike pretty near the right position; for it is far easier to remedy defects of making-up on the stone, than it is to do the same work on a press.

In forms of twelve, eighteen, twenty-four, thirty-six or forty-eight pages with a cut-off, the head-margin for the cut-off should be indicated by placing a short piece of rule at sufficient distance from the head-line of two or four of the pages in the cut-off, as a guide to the binder for making his margins. By referring to the following diagram our meaning will be made clear:



Suppose there are *ten* picas in the head between pages 1 and 8, the distance between the head of page 9 and the margin rule would be *five* picas, while the distance between the foot of page 5 and the margin rule might be seven or eight, or any other number of picas, as this margin will be

cut away by the binder to correspond with the head margin. In forms containing the above number of pages, but which "turn in" instead of being "cut off," the furniture will have to be so regulated as to leave the right margin between the head of the page and the outer edge of the sheet, so that the binder is not put to unnecessary trouble in folding the same.

There are other and peculiar modes of making up furniture, dependent upon particular shapes or sizes of jobs, but it would serve no good purpose for us to refer to them, as there is usually some older and wiser head near by, to give counsel and advice to the younger members of the fraternity at times of difficulty or in dilemmas.

We will have suggestions to make on other important matters connected with the typographical art, in a future number of this journal.

THE PRINTING OFFICE.

"THE PROPER PROPORTION OF TYPE AND ARRANGEMENT OF A PRINTING OFFICE."

THE following essay delivered at the last meeting of the Arkansas Press Association, by Mr. James R. Bettis, of the *Arkansas Democrat*, is replete with valuable suggestions, and will no doubt be read with interest and profit, alike by employer and employé:

Your essayist has been given a subject that pertains entirely to the practical side of our profession. "The Proper Proportion of Type and Arrangement of a Printing Office." Here is a topic upon which every printer—particularly he who has achieved the dignity of foremanship—has his own peculiar theories; theories in which he believes as firmly as in his own existence, and which he will never surrender before the assaults of any man's argument. It is not alone from the printer's standpoint that your essayist today presents his views for your consideration. For some four years he was a member of the great army of commercial travelers, and roamed unfettered the broad West and South in search of confiding printers whom he might inveigle into the purchase of type and paper. He has been a seller of types as well as a buyer, and has had occasion to study the subject from both sides.

In the starting of a newspaper office the very first thing your correspondent has found to be necessary has been money in bank; not indefinite promises of support, but spot cash, subject to draft. Taking the weekly paper as our especial subject, such being largely in the majority, the establisher thereof should have at least \$25 for each column which his proposed journal is to contain; \$30 would be better. This would give a twenty-eight-column paper (about the average in the state) from \$700 to \$850 to start upon. If a job department is to be included, add from \$300 to \$500 more. With this amount of money, judiciously expended, the publisher should find himself prepared to print his paper, and a moderate run of commercial job work, in good style. Better put up with less if the money is not on hand to put down for it. And your essayist will conclude these preliminary remarks with this record from his experience: given, a man attentive to his business and conducting it with a reasonable amount of good sense—starting out square with the type foundry and paper house—the result will be immediate and continued success. On the contrary, if a blanket mortgage is put on to keep things warm about the office, the way will be hard and weary, and the final result doubtful. In a traveling experience of four years, among newspaper men of twelve states, the essayist has never known the first of these conditions to produce failure, and he regards a well established newspaper, efficiently conducted, as quite as sure to yield an income as a government bond, and with this advantage over the bond, the longer it runs the more valuable it gets.

In selecting the body letter for your proposed newspaper, consider, among other things, your location; that is, don't try to run a nonpareil paper in a small pica town. It's ruinous. Determine as nearly as

possible how much labor you can afford to expend upon each week's edition, and then select your size of sheet and body letter accordingly, taking care that your paper is one of the standard sizes carried in stock by all the paper dealers. In the opinion of your essayist, a good round face of bourgeois is "the noblest Roman of them all." The auxiliary publisher uses that size, as best adapted to the purpose. Bourgeois is plenty large enough not to tire the eye, and small enough to justify in a narrow column without bad spacing. Long primer with brevier for the advertisements, will do very well, and where the newspaper type is also required to do service in job work, these sizes are more convenient than bourgeois and minion. But stop at long primer! Small pica or pica in anything less than twenty-four ems measure is an abomination. There is neither good sense, good taste, nor economy in using large Roman to fill up a big sheet cheaply; much better cut down the size two or three columns and use suitable material.

For your display type, buy good, strong fonts of standard letter, and, above all things, buy only in series. Select, for instance, an extended, a medium, a condensed and an extra condensed series, and take four or five sizes of each. This will be much more convenient in use, and present a more uniform and much handsomer appearance than the same number of fonts picked helter-skelter, no two of the same kind. Very large sizes and very heavy faces are neither necessary nor ornamental in a weekly paper. It is not the size of the displayed line that makes it appear prominent, but its comparative size. In a New York *Herald* advertising page, where nothing is allowed larger or heavier than nonpareil roman, a line of these caps, with plenty of white space about it, in a column "ad," catches the eye as quickly, and is quite as efficient in every way as a big heavy line in a page where other equally prominent lines are in use. If the rule of smaller faces of type and more white space in the display of advertisements were adopted, the result would be a greatly improved appearance in our newspapers, with no loss whatever of effectiveness to the advertiser. We suppose it is almost unnecessary to say that, of all things, fancy type is most out of place in a newspaper column. Your essayist always has a feeling of sympathy for a handsome fancy face in such a position. It seems to look up mournfully and say: "Please don't think hard of me, sir! I know I've no business here, but it's not my fault. I couldn't help it. I look very well in my proper place, sir; indeed I do!"

Let your printing office furniture, racks, stands, etc., be strongly made, and convenient. Money spent in serviceable cabinets, dust-tight, is well invested. After your furniture is all together, stones mounted and cases in racks, a ten-cent pot of stain applied to the woodwork will add greatly to its appearance. And here let me say that neatness and taste in the furnishing and arrangement of an office are about as important elements as convenience, for they are essential to the material being kept in good condition. Employés will feel the influence of such surroundings, and gain a respect for neatness and order, which will exert a restraining power through all their manipulation of material and machinery. On the other hand, let slovenliness once gain a hold, and every quad box will soon be half full of odd sorts, every dark corner conceal a pile of pi, and everything in general be out of place and out of condition for use. Don't expect employés to themselves establish and carry out the rules of economy and order. In this matter more than any other it is "like master, like man," and the spirit you manifest at your desk will permeate and pervade the whole house.

Select a plentiful supply of leads, rules and furniture. These things do not cost much, and the want of them will be certain to cause great inconvenience.

In the selection of a job office you will, of course, be largely governed by the class of work you expect to do. There are, however, a few rules of almost universal application. First, buy your type in full series, and the plain faces, like Celts, Gothics, etc., in strong fonts. That which is most valuable in the printing-office, and upon which the employer expends the largest amount of money, is time; and the observance of these two points at the outset will save many an hour which the compositor would otherwise waste in hunting sorts or a line to just fit a place.

In this day of many type foundries, each making its own special patented faces, it is impossible to select a large job office from any one, and so maintain absolute uniformity of body in the various sizes; but this

should be insisted upon in all the Romans and the plainer job type. Decide at first what foundry you will patronize, and then stick to it just as far as possible. Buy but little fancy letter, add desirable faces as they appear, and so keep up with the times. When a font of type is out of style and well worn, it is better to get rid of it, even as old metal, than to keep it around to waste the time of pressmen and injure the looks of fresher material. Don't put much money into many characterized and elaborate combination borders. They can only be used occasionally, and few customers are willing to pay for the time they consume. Provide plenty of labor-saving rule, brass leaders and furniture, and quads and spaces of all sizes. They are time-savers. Lastly, in this connection, your essayist would most urgently advise, do not buy second-hand material or presses unless you are buying out an office where the good-will of the business is a consideration. Worn-out type and dilapidated machinery are by themselves a dear purchase at any price.

For the rooms that are to be the abiding-place of a newspaper outfit, the chief essentials of central location, accessibility, plenty of room, and abundance of light, are, of course, first to be considered. These being secured, the arrangement of the office is the next thing our publisher has to consider. The business office and editorial room, which, in nine cases out of ten, will be combined, should be separate entirely from the printing-office proper. From the age of Gutenberg to the present the craft of printing has been somewhat of a mystery to the uninitiated. This mystery begets respect, which we should have a care to foster, not by deception, but by the prevention of unnecessary familiarity. A patron may enter the snug little business office of the publisher, and being impressed with his business-like demeanor and ready ability to answer the demands upon him, go away with a vague idea that there are three web perfecting presses and an army of compositors somewhere in the building, carrying on the inner work of the establishment, while, if he finds our editor at a dilapidated desk in one corner of the room, while the foreman, a girl and the "devil," evidently the whole corps of the concern, are killing time over the case in another corner, he will not go away very deeply impressed with the magnitude and importance of the business. And then there are many pieces of work in a composing-room that ought not to be exposed to the inspection of every chance caller, while the conversation of the editor's visitors will not assist the compositors to concentration of mind upon their work.

Furnish your business office suitably and tastefully, and keep it in order. It will be taken by the public as an index of the management of your whole business; and, if made especially attractive, will be one of the best advertisements you can have.

And in your work room, locate your stands, cabinets, stones, presses, etc., as near together as possible, without crowding. Extra steps in a printing-office consume that time that runs into money so fast. Of course, good light is a chief consideration, and warmth in cold weather, both for presses and type-stands.

Have a good sink, with every convenience for washing forms and rollers. Thorough cleaning is of the utmost importance in preserving type in good looks. Notice, the first thing, if your foreman wields a heavy lye brush and a light mallet and planer, and uses the latter principally before the forms are locked up. If he meets this test, he will probably prove a good mechanic in all other respects. Failing in this, your type will soon lose its fine face if left to his care.

An air-tight roller closet is a necessity in every pressroom, into which the rollers should be put every night, with the ink left upon them. Rollers are among the most expensive perishable articles, and, if not very carefully attended to, become doubly so. A dust-tight ink closet will also be found valuable in the preservation of this valuable commodity.

It would be a pleasant task for your essayist to continue at further length the consideration of these and other topics kindred to the glorious "Art Preservative," but your committee, with due consideration for the time and patience of the association, set a limit to the length of this paper, which has now been reached. So I will say finally, brethren of the press, let these abodes of "the devil" be governed throughout, by the same great principle that rules the higher spheres, let "order be their first law," and with a well-selected office, conveniently arranged, and all paid for, go on to that glorious and enduring success which the conscientious editor, above all others, so abundantly merits.

THE ART OF BRONZING.

This art is closely allied to that of gilding, in regard to which some practical instructions were given in a recent issue of our journal. The process actually consists in giving a bronze-like, or an antique metal appearance, to the surface of copper, brass and other metals. The following methods are recommended for this purpose:

FIRST RECIPE.—To the surface of the article, first thoroughly cleaned and polished, evenly apply with a brush the common crocus powder ("jeweller's rouge"), previously made into a smooth paste with water. When dry, place it in an iron ladle, or on a common fire-shovel, and expose it over a clear fire for about one minute; lastly, when sufficiently cold, polish it with a plate brush. This gives a very rich appearance, similar to that on tea urns; the shade depending on the duration and the degree of heat employed.

SECOND RECIPE.—As the last, but substituting finely powdered plumbago for crocus powder. This bronzing is equally beautiful, but deeper colored, and more permanent than that produced by the first recipe.

THIRD RECIPE.—As the preceding, but employing mixtures of plumbago and crocus in various proportions, according to the shade desired.

FOURTH RECIPE.—A dilute solution of liver of sulphur (sulphurated potash) or of hydrosulphate of ammonia is applied with a camel-hair pencil to the metal previously slightly warmed; when dry, the surface is either left rough or brushed off. If liver of sulphur has been used, it will be better to wash it first in clean hot water, but without the slightest friction. This gives the appearance of very antique bronze.

FIFTH RECIPE.—Verdigris, two ozs., and sal-ammoniac, one oz., are dissolved in vinegar, one pint; and the mixture is diluted with water until it tastes only slightly metallic, when it is boiled for a few minutes, and filtered for use. Copper medals, etc. (thoroughly cleaned), are steeped in the liquor at the boiling point until the desired effect is produced. Care must be taken not to keep them in it too long. When taken out they are carefully washed in hot water and dried. The effect is similar to the last.

SIXTH RECIPE.—Take verdigris and vermillion, of each 2 oz.; alum and sal-ammoniac, of each 5 oz. (all in fine powder); vinegar, a sufficient quantity to form a thin paste. This is spread over the surface of the copper, which is then uniformly warmed by the fire, and afterwards well washed and dried. The tint may be deepened by repeating the process. The addition of a little blue vitriol inclines the color to a chestnut brown. This is used by the Chinese for copper tea urns, etc.

SEVENTH RECIPE.—Take sal-ammoniac, 1 oz.; cream of tartar, 3 oz.; common salt, 3 oz.; hot water, 1 pint; dissolve; then add of nitrate of copper, 2 oz., dissolved in half a pint of water; mix well, and with it repeatedly moisten the article (placed in a damp situation) by means of a soft brush. This mixture produces a very antique appearance.

EIGHTH RECIPE.—Take salt of sorrel, 1 oz.; sal-ammoniac, 3 oz.; distilled vinegar, 1 quart; dissolve, and apply as in the last recipe. This is much used for bronze figures.

NINTH RECIPE.—Take a very weak solution of bichloride of platinum, apply with a hair pencil or by immersion. This is used for binding screws, holders, and other small articles of copper and brass.

TENTH RECIPE.—Take sulphate of iron and sulphate of copper, of each 1 oz., water, 1 pint; dissolve, wash the surface of the articles with it, let them dry, then apply a solution of verdigris, 2 oz., dissolved in strong vinegar, $\frac{1}{4}$ pint; when dry polish them with a soft brush, and either some plumbago or colcothar. This is used for tin castings.

ELEVENTH RECIPE.—In this method the articles, properly cleaned, are either immersed in, or washed over, with a solution of sulphate of copper, or of verdigris. In a short time they acquire a coating of pure metallic copper, and are then washed. This only answers with iron and steel goods. It is admirably suited for iron castings.

TWELFTH RECIPE.—An antique appearance may be given to silver by either exposing it to the fumes of hydrosulphate of ammonia, or immersing it for a very short time in a solution of hydrosulphate of ammonia or in dilute nitric acid.

BRONZING PAPER AND PLASTER OF PARIS.—The following method is available for bronzing the surfaces of figures made of paper, wood,

plaster of Paris, etc.: It is effected by first giving them a coat of oil varnish or size, and when this is nearly dried, applying, with a dabber of cotton, or a camel-hair pencil, any of the ordinary metallic bronze powders before referred to. Sometimes the powder is placed in a little bag of muslin, and dusted over the surface. The articles should be afterwards varnished. Paper is bronzed by mixing the bronze powders up with a little weak gum water, and burnishing the surface when dry and hard.

BRONZING ELECTROTYPES.—Electrotypes may be bronzed *green* by the following method: Steep the medal or figure in a strong solution of common salt, or sugar, or sal-ammoniac, for a few days; wash in water, and allow to dry slowly, or suspend it over a vessel containing a small quantity of bleaching powder, and cover over. The length of time it is allowed to remain will determine the depth of color.

Bronzing in brown is thus effected: Add four or five drops of nitric acid to a wineglassful of water. The object is rubbed over with this, gently, and allowed to dry, and when dry subjected to a gradual and equal heat; the surface will be darkened in proportion to the heat applied.

The following gives a black bronze: Wash the surface over with a little dilute solution of hydrosulphate of ammonia, and dry at a gentle heat.—*British and Colonial Printer and Stationer.*

WHAT CONSTITUTES GOOD TYPE-SETTERS.

With the increase of typographic literature there has come a wider interest in typography. The eager quest for rarities in printing has attracted a broader, deeper attention toward the class of men trained to set the types that first revolutionized the world and now rule it. Intelligent, thinking readers of books and newspapers, too, have learned that composition is the most exacting work to which a man can be put, requiring, for anything like its proper performance, good eyes, nimble fingers, and a physical organism capable of sustained effort. Standing at ease, handling type, is no weakling's effort, and no delicate or impaired physique can stand the strain for any length of time. Besides keenness of vision, steadiness of nerve, and tough muscles, the compositor must possess a general education above the average. Not a knowledge of the dead languages, nor a smattering of the modern ones; but he must be well grounded in the grammar of his own tongue. It is absolutely necessary that he shall be a master of orthography; faulty spelling is an unpardonable ignorance in a compositor, a defect that would disqualify him for his calling almost as completely as loss of eyesight. He must be as perfect in punctuation as in spelling. There are many authors whose names are written high up on the roll of fame, who did not know how to properly construct sentences, who trusted implicitly to the compositor for the proper punctuation of their work. Compositors, like poets, are born, not made; the man who has no natural adaptation for type-setting, will never be competent in the craft. All other requirements being equal, men of sanguine temperament make the best compositors. There is an ancient aphorism which says that red-haired printers are always the fastest. Perhaps this is true, because a sanguine temperament, as a rule, accompanies an inherently healthy physique, one capable of enduring long spells of exacting work by body and mind without producing lassitude of muscles and dullness of intellect.—*Printers' Circular.*

NEW TYPE-SETTING MACHINE.

The type for the *Citizen* of Ilion, N. Y., was entirely set up by machinery one week lately and an edition of five thousand printed by the aid of electricity. The machine that set the type was invented by John L. McMillan of Ilion. His machine avoids all complications in mechanism, report says, and produces a method whereby the letters follow direct and uninterrupted courses in all their movements. Two operators are required, one to manipulate the keyboard and one to space out, while the distributor requires about one half the time of an attendant to feed the lines to it. The capacity of the machine is five thousand ems per hour, and no power other than the fingering of the keyboard is required. The distributor is automatic in its distribution of the letters, and has a capacity equal to the setting machine. The face of the type is not touched in its passage through either machine. Type can be distributed at considerably less than half the cost of hand labor.



10A.
Quads and Spaces, .38c.

THREE-LINE NONPAREIL IDEAL.

\$2.85

EVERYBODY'S
SHADY SUMMER GROVE
EXCURSIONS

7A

DOUBLE PICA IDEAL.

\$3.00

SEVEN
WROTH SWRETHMS
PSSAWORIAL

5A.

THREE-LINE PICA IDEAL.

\$4.80

WILL & FARR
ROYAL

THE H. H. THOMP MFG. CO.

22

CLEVELAND TYPE FOUNDRY

Cleveland Type Foundry,
Cleveland, Ohio.



6A, 12A.

TWO-LINE PICA SIGNET SHADE.

\$5.00

DEEP THINKING
Artists Enjoy Odd Gozceits
1234567890

4A, 8A.

THREE-LINE PICA SIGNET SHADE.

\$7.20

REGHRRGHE
Exquisite and Grand
1234567

IN COMBINATION.

Leonard National Bank
Received of \$

THE H. H. THOMP MFG. CO.

23

CLEVELAND TYPE FOUNDRY



MARDER, LUSE & CO., TYPE FOUNDERS, CHICAGO, ILL.

MODOC SERIES.

PATENTED AUGUST 12, 1884.

8A, 16a, with spaces and quads.

GREAT PRIMER.

\$3 40

INTELLIGENCE AND COURTESY
Not always are combined, often in a Wooden House
123 * a Golden Room we find * 456

6A, 12a

DOUBLE PICA.

\$3 80

JOY * TEMPERANCE * AND
Repose Slam the door in the Doctor's nose
68 * Darkness Visible * 25

4A, 8a, with spaces and quads.

DOUBLE GREAT PRIMER.

\$6 30

GLORIA * PATRIA
Cloister Rather than Crown

PICA SIZE IN PREPARATION.

CALIGRAPH, No. 3.

20A, 120a, with spaces and quads.

LONG PRIMER.

\$6 25

The attention of the Trade is called to our ELECTROTYPE FOUNDRY as being one of the Largest and most complete in the Northwest. With the Latest Improved Machinery and a large and efficient corps of skilled workmen we are prepared to turn out work equal if not superior to any other establishment. We have a very large assortment of MISCELLANEOUS CUTS on hand, many of them not shown in our Specimen Books, electrotypes and of which will be furnished at REASONABLE RATES.

Yours truly,

MARDER, LUSE & CO.

A SPLENDID CHANCE.

Printers, Attention!

There is now offered for sale in this city, at a bargain, the entire material of a complete printing establishment, containing:

- 1 Cottrell Improved Air Spring Two-roller Printing Press. Capable of working a sheet 37 x 50 inches.
- 1 Campbell Country Press. Size of sheet, 32 x 44.
- 1 Hoe Super Royal.
- 2 Medium (new style) Gordons.
- 1 Baltimore Jobber.
- 1 20-Horsepower Engine and Boiler.
- 1 Paper Cutter.
- 6 Imposing Stones.
- 18 Double Frames.

24 Cases, filled with Job type in good condition.

Large quantities of body type; also slugs, leads, and all material required in a useful and well-equipped printing office.

This establishment cost between \$22,000 and \$23,000, and is now offered, complete, for \$9,000; part cash, balance secured. Five per cent off for cash. Will be sold whole or in part.

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"J. R. O."

Care of INLAND PRINTER, No. 2 Taylor Building, Monroe St., Chicago.

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Calendars for 1885.

Sixty-Four different Styles and Sizes.

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Relief-Line and Photo-Engravers,

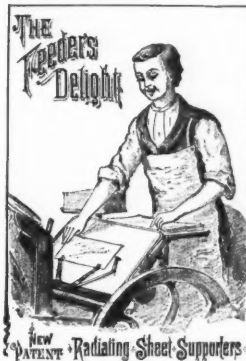
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CHICAGO.

THE LATEST, CHEAPEST AND BEST REGISTERING DEVICE IN THE WORLD!

FOR ALL SIZES AND MAKES OF PLATEN PRINTING PRESSES.

Anyone can apply them to the platen by hand, where they will remain ready for use. They do not damage the platen paper but hold rigidly.



They are adjustable to the finest degree, and to all positions. They answer for every description of work and feed perfectly smooth and easy.

Sizes ..	2½	3	3½	4	4½	5	5½	6	6½
Prices..	\$2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70	2.80
For the	6x9	7x11	8x12	9x13	10x15	11x17	12x18	13x19	14x22

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Brass Gauge Pins, 40c. per doz.

Adjustable Steel Gauge Pins, 60c. per doz.

Spring Tongue Gauge Pins, \$1.20 per doz., 40c. per set.

Improved Extension Feed Guides, \$1.00 per set.

Wire Gauge Pins, 25c. per doz.

Lighting Sheet Adjusters, \$1.20 to \$2.00 per set.

Radiating Sheet Supporters, \$2.00 to \$2.80 per set.

Parallel Feed Guides. Prices according to style of press.

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JOB OFFICE OUTFITS.

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In JOB, DISPLAY TYPE and SCRIPTS are so varied that we can fit out a Complete Office in our own type.

Type of other Founders furnished when desired.

Printing Presses, Printing Inks, Paper Cutters.

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GALLEYS, IMPOSING STONES,

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 NOVELTIES, SCRAP PICTURES, FRINGED GOODS, &c.
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 GOLD, SILVER AND FANCY COLORS.
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 FOR
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STANDARD NEWSPAPER UNION.
 "A NEW BROOM SWEEPS CLEAN."
 Partly Printed Sheets equal in all respects to those of any older house.
 FOR TERMS AND SAMPLES WRITE TO
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G. B. KANE & CO.,
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 173 La Salle St., CHICAGO.

IVES' PROCESS OF PHOTO-MECHANICAL ENGRAVING AS NOW OPERATED.

A GELATINE film, sensitized with bichromate of potash, is exposed to light under an ordinary photographic negative. It is then placed in cold water, which swells it into relief, highest where the negative was most opaque.

A cast in plaster is then taken from this wet gelatine relief. The surface of the cast is highest where the negative was most transparent (representing the blacks of the photograph), and lowest where it was most opaque (representing the whites). Variations in height between the

blacks on the highest parts. By means of a transfer process perfected by the inventor, this ink picture is lifted from the plaster and may be either put down upon a zinc plate and etched into relief, or photo-engraved by any of the well known processes.

The plate herewith presented, produced by the "Ives" process, is from a painting by Jean Berand, which was exhibited in the French Salon, 1884. The reproduction of an oil painting of this class is a severe test for a photographic process. A "Meisenbach" plate of this same subject appeared in *L'Illustration* (Paris), May 3, 1884, and if those of our skeptical readers will obtain a copy of



two extremes represent the middle shades of the photograph.

The plaster cast, produced in the manner described, is utilized for translating the body shades of the photograph into lines and dots by a purely mechanical means, as follows:

An elastic stamp of V shaped lines or dots is inked and pressed against the relief until the flattening of the lines or dots causes them to make an even black impression on the highest parts of the relief. The ink dots are then very minute on the low parts of the relief, increasing in size where it is higher, until they meet to produce the perfect

that issue they will see that the "Ives" plate has rendered details, both in shadows and high lights, which are lost in the "Meisenbach," yet the latter used an *original negative*, while the "Ives" plate is produced from a *copy*.

The following extracts, from the *London Photo News* (September 5 and 12 respectively), certainly high authority on such matters, shows the estimation in which the productions of our talented countryman is held by that journal:

HELIO-CHROMIC TYPOGRAPHY BY THE METHOD OF IVES.

Mr. Ives forwards us an interesting reproduction of a chromo-lithograph, printed in three colors from three blocks, and the result is such

as to indicate that the method may ultimately become one of commercial importance.

The specimen is, it appears, the result of some early experiments, and is dated August, 1881. We can best describe the method of production by quoting Mr. Ives' own words. He says: "This is printed from three plates, produced entirely by photography. One is printed with red ink, one with yellow and the other with blue, each putting down the color exactly where it belongs, and in almost exactly the correct proportion. If the lining of the plates had been finer, and the inks of purer and more transparent color, the result would have been almost perfect. The negatives were made with bromide emulsion, treated with chlorophyl, eosine and tannin, and exposed through colored screens to distinguish the colors. The theory is not new, but the details of working are; and the result is remarkable, as being the first practical demonstration of the possibility of securing photo-mechanical reproductions in natural color for the printing press."

We have seen chromo-typographic prints from phototype blocks; the colors were not, as far as we know, mapped out, or distinguished by an automatic agency as in Mr. Ives' production; but a number of identical plates were made, one for each color, and those parts which were not required to print were cut away by the tools of the engraver. Another method—which, in reality, amounts to the same thing—consists in making several identical negatives, and blocking or marking them out so that each one shall correspond to one particular color. A series of blocks is then prepared from the negative so treated, and the colors are then printed in succession from the blocks.

Mr. Ives has, by his method of translating the Woodbury relief into a grain or stipple, adapted for the making of typographic blocks, made a decided step in advance, and his method bids fair to become of considerable commercial importance. Our supplement this week may be fairly taken as representing the point of perfection to which photo-block printing has arrived at present. May we hope that some future development of Mr. Ives' process may one day render it possible to produce equally good reproductions in color?

PHOTOTYPE BY THE IVES PROCESS.

DEAR SIR,—In justice to ourselves, I beg of you to point out to your readers that the beautiful supplement to your last issue from a photograph by Ives' process *has been printed from the stone*, where it is very easy to put in all those lights in the trees, etc.; whereas you print our plates with the letter-press on your ordinary paper, which makes all the difference. It would also be interesting to know how long it took to produce the plates, and at what price they can be supplied.

Yours faithfully,

E. PICK.

Meisenbach Company, Limited, 31 Farringdon street, September 6.

[The supplement by the Ives process which we issued last week was not printed from stone, as our correspondent appears to think, but from a typographic block; and as regards the suggestion of Dr. Pick that the excellence of the print is partly due to something of the nature of retouching we may quote from Mr. Ives' letter to us of August 1. He says: "The subjects are not of a 'showy' character, and were turned out in the regular course of business, and finished without any retouching. They are fair samples of our commercial work, not better than we average from equally good copy." It is but just to Mr. Ives to mention that some few weeks before he sent us the supplement we received from him a considerable number of subjects of equal excellence. On previous occasions Ives' blocks have been printed along with letterpress in the *Photographic News* (the first in 1882), and on one occasion a Meisenbach block-print was issued as a separate supplement; so each process has been presented to our readers under the two several conditions. It is curious to note that when our separate supplement by the Meisenbach method was issued (November 23, 1883), certain persons loudly asserted it to be a lithograph; but their mistake, like that of our correspondent, doubtless arose from the fact of the grain of the highly-rolled paper being somewhat raised by contact with the damp sheets of the recently printed reading matter. Any person who is familiar with printing, and who inspects prints which have not been laid in the damp copies of the *Photographic News*, can see at a

glance that our Meisenbach supplement (November 23, 1883) and our Ives supplement of last week are actually block prints.—*Ed. P. N.*]

The firm with which Mr. Ives is identified is that of Crosscup & West Co., 702 Chestnut street, Philadelphia.

PHOTO-ENGRAVING.

AMONG the late great inventions of the age is that of engraving by photo chemical means, and the feeble beginning made less than a score of years ago, has blossomed into one of the great art industries. The Photo-Engraving Company of New York, the first to make a practical use of this method of engraving, was incorporated in 1872, and commenced business with less than a dozen employes. Today it employs nearly two hundred hands, and is the largest establishment of the kind in the world.

The plate produced by this method is of hard type metal, in appearance like an ordinary stereotype, and the lines are as deep, as even, and as sharp as they could possibly be cut by hand. They are mounted on blocks type-high, and are ready for use on any ordinary printing-press. On the press they require no more making ready than wood cuts, and with a fair usage are good for from thirty to fifty thousand impressions. They are an excellent substitute for wood cuts, and are superior to them in the important point of rapidity of production, cheapness, and the literal rendering of the work of the artist.

This method of producing relief plates differs essentially from every other in use, and its superiority is apparent on the slightest comparison of results. Not being engraved by the action of acid, on zinc or other metals, they are free from that clumsiness of line, or rough and broken appearance, which is inseparable from that method.

When very large or numerous editions are to be printed, it is advisable to provide against overwear or injury to the plates by the use of electrotypes, which can be made from the plates at a small additional expense, in the same manner as from wood cuts.

The engraving is done directly, either from prints or pen drawings. Nearly all wood-cut and copper-plate prints, and a large percentage of lithographic and steel-plate prints can be reengraved with entire success, and without redrawing. It is essential that the copy be in *clear black lines*, or *stipple*, and on white, or only slightly tinted paper. Small defects may be remedied, though generally the best that can be done, is to reproduce the copy with photographic accuracy. Of all photographs, pencil sketches and designs in pale ink or pencil, drawings must be made, with thoroughly black ink, on bristol board or other smooth white surface, before they can be engraved. The drawings should usually be made twice the length and twice the width of the plate desired.

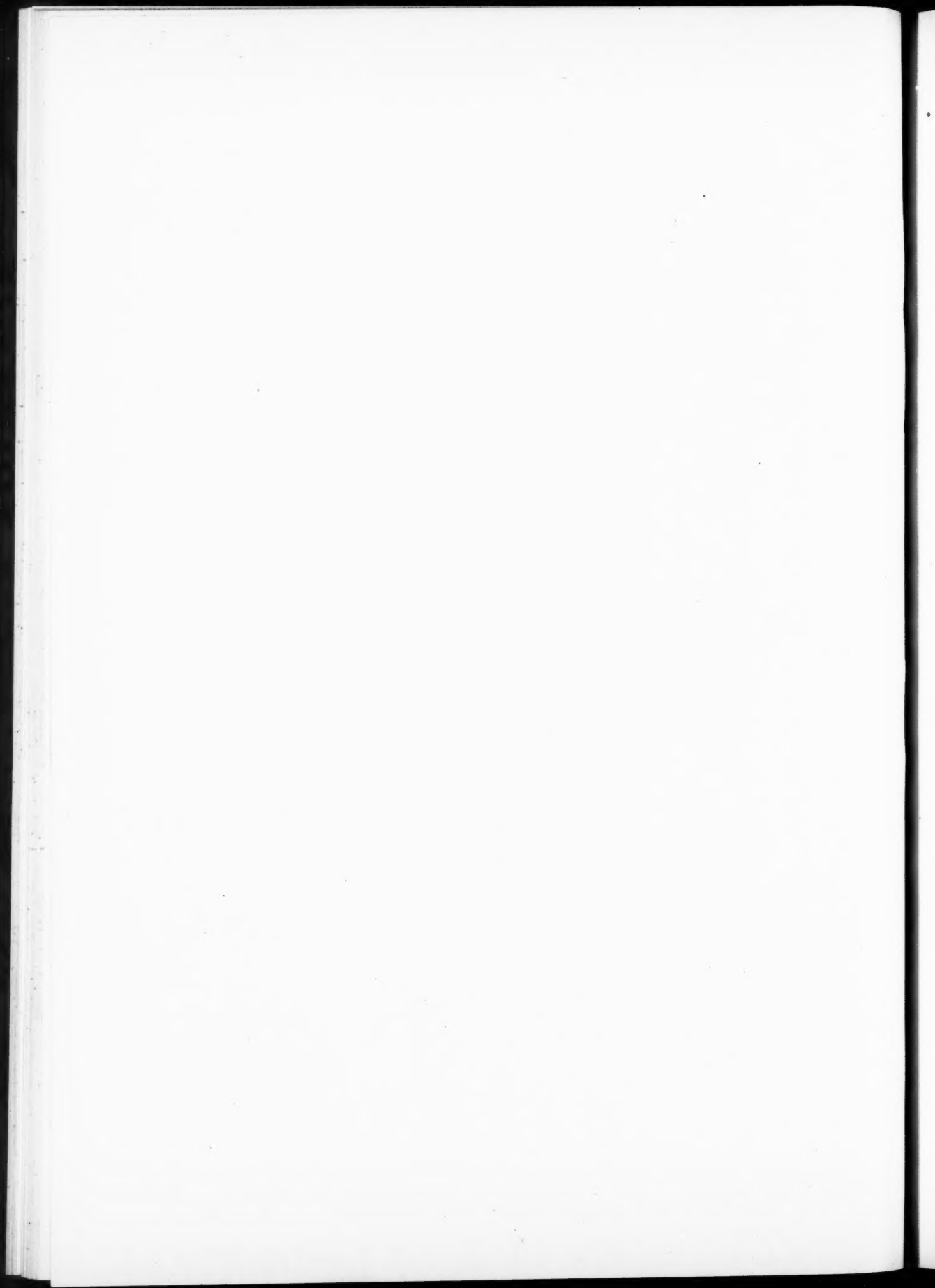
The prices for engraving by this method are very much lower than by wood engraving; sometimes as much as seventy-five per cent may be saved.

The relief engraving for the United States Government is done by this company, and among its customers are the *Century Magazine*, Harper & Bros., D. Appleton & Co., G. P. Putnam's Sons, Dodd, Mead & Co., J. B. Lippincott & Co., and many others standing equally high in the



AN IDEAL HEAD.

ENGRAVED BY PHOTO-ENGRAVING COMPANY, NEW YORK.



publishing trade, who use nothing but work of superior excellence.

The picture, "An Ideal Head," in this number of *THE INLAND PRINTER*, is a good specimen of the superior results attained.

The main office of this corporation is at Nos. 67, 69, and 71 Park Place, New York City, and the officers of the company are, John Hastings, president, and A. R. Hart, general manager. Specimens of engraving will be sent to any address on application.

QUANTITY OF WATER PER HORSE POWER.

It is well known that the evaporation of water per pound of coal differs largely in different classes of boilers, and even in those of the same class, but of different proportions. This difference, says the *Scientific American*, ranges from an evaporation of say five pounds of water per pound of coal in a poor or indifferent boiler, to about eleven or twelve pounds of water per pound of coal in boilers of a better class well proportioned. For the purposes of this article we will assume that eight pounds of water per pound of coal is a fair average for good boilers as now in use. We will further suppose 150 pounds of coal per hour consumed; then the evaporation would be $150 \times 8 = 1,200$ pounds water evaporated. This is the quantity or weight of steam that the boiler can supply, or the gross quantity applicable to the engine, and if the unit of thirty pounds steam per horse power per hour be assumed, it would be a forty horse power boiler; but whether the power actually realized be forty horses, or more or less, depends upon the economy with which the steam is consumed.

Now if this power be supposed to be the gross power of a fall of water, it would be readily understood that the available or useful power to be obtained would very largely depend upon the character and perfection of the water wheel to which the water was applied, whether such wheel should give out fifty per cent or eighty per cent of the gross power of the fall. So it is in the use of steam in the engine; the boiler supplies a gross quantity or weight of steam per unit of time, but what shall be the available or useful power given out by that weight of steam must depend in a great measure upon the character, condition and perfection of the engine by which the steam is consumed.

We have in use: (1) The plain slide valve engine, working with little or no expansion. (2) The adjustable cut off engine, working with a fixed ratio of expansion determined by the amount of work to be done, or by the fancy of the engineer; and (3) the automatic cut-off engine, in which the ratio of expansion is determined by the engine itself to exactly meet the requirements of load or work of the engine at any given instant of time. The economy in the use of steam in these different classes of engines is in the order named, the first being that of the least economy, and the third that of the greatest economy. But there is still the matter of the condition of the engine to be taken into account in considering the question of economy. If there are losses from leaks at any point between the boiler and the working side of the piston of the engine, either from joints, valves, or piston, all such leaks militate against economy. It has been ascertained by direct tests that the best class of engines, in good condition, will furnish one horse power from the steam resulting from the evaporation of less than eighteen pounds of water per hour; and on the other hand, poorly constructed engines in bad condition have required as much as the steam generated from the evaporation of over sixty pounds of water. But the average experience for the production of one horse power is the unit of thirty pounds of water, or approximately one-half a cubic foot of water evaporated per hour by the boiler.

PRINTING is progressing in Switzerland. Whilst in 1835 there were only 105 offices, there are now above 300 complete offices and about 200 using only treadle presses. The number of papers has also grown proportionately. In 1835 there were but 54 papers in the whole country; now there are 307 political and official papers, and the figure of the trade papers, the literary journals and others is also respectably high.

THE ART OF XYLOGRAPHY.

Xylography is a term that has long been recognized as describing the progress of printing from wooden blocks, as contrasted with that of printing from forms of type. It immediately preceded, in fact, the art of typography. Some inventor, however, has lately applied it to a process of painting on wood. The process is interesting and ingenious, and ought to have a more distinctive appellation.

The commencement of the process is to draw on wood or on paper the pattern selected, from which the design is to be transferred to wood. The design is then engraved or reproduced in zinc by a well known method. An electrotype cast is then taken from the wood-cut or zinc plate, and smooth slabs of wood are printed from the electrotype under a regulated pressure, with pigments especially prepared. The wood, where the pattern is, is slightly indented by the process. There is no outside film of color. The dye has penetrated the wood.

To preserve the material and enrich it, the French polisher is called in, or the whole of the wood is covered with a fluid enamel, which may be applied by an inexperienced person with a brush, and is serviceable for protecting any neighboring pieces of metal, as well as the wood. The wood can be scrubbed, washed, and even sand-papered without destroying the pattern. Xylography depends upon printing with movable blocks, and by placing different patterns side by side, the effect of the whole may be varied at will.

Arabesques, tile patterns and flowers are printed with movable blocks, which can be collocated together in an infinite variety of ways. The complete series or group, forms the ornament of a door panel, the skirting for a room or a ceiling, a frieze or a border of any purpose, a line of decorations for the wall of a corridor. The method is very suitable for application to furniture, desks, work-boxes, in cases where the expense of inlaying is prohibitive; and perhaps it is by this means that it will ultimately be employed. At present the results of the disposition of brown, black, russet, green and gray-blue stains on sawn pine wood are agreeable from novelty, as well as from the taste with which the patterns are arranged. A door can, by xylography, be decorated in six panels at the cost of a guinea and a half in permanent colors, with refined and intricate patterns, such as have hitherto been chiefly seen in the tail-pieces of gift books. Most slabs are printed in one color, and by one impression, but tint can be applied over tint in exactly the same manner as in chromo-lithography. This process is certainly worthy the attention of the manufacturing stationer.—*British and Colonial Printer and Stationer.*

THE GREAT ENGLISH PRINTERS.

By a legal fiction, having a foundation in bygone facts, the law courts in England hold responsible the printer of a newspaper for whatever libels may be printed in its columns. In the early journals of England the master printer, or employing printer, was also the owner of the newspaper. Newspaper proprietors who had never seen the interior of a composing room, and editors-in-chief who knew nothing of printing, came in much later. English law and custom are slow to change, and, to this day, the *London Times* bears the imprint of a printer who is an employé of Mr. Walter, but who has no more voice in selecting the contents of the paper than one of the pressmen. For many years the name of Francis Goodlake appeared as printer of the *Times*. At one time Mr. Goodlake was summoned to the bar of the House of Commons to answer for an objectionable article in the *Times*. Poor man! he had never seen the highly objectionable stricture on the powers that were, until some one called his attention to it in a copy of the paper for the contents of which the Commons of England held him responsible. The owner of the *Times*, the real responsible party, sat in the House as member from Berkshire, while his employé was being sharply interrogated on a subject of which he was ignorant, and which the M. P. from Berkshire knew all about. These nominal printers are still sued in England when an action for libel is taken. Usually some old compositor or pressman is the nominal printer, who is amply protected in all suits by the proprietors of the newspapers which, in law, they are supposed to own and control; but which, in fact, they have no interest in, but serve in humble capacities at the will of the proprietor, who is seldom a printer.

CORRESPONDENCE.

While our columns are always open for the discussion of any relevant subject, we do not necessarily indorse the opinions of contributors. Anonymous letters will not be noticed; therefore our correspondents will please give names—not for publication, if they desire to remain incog., but as a guarantee of good faith.

FROM ST. LOUIS.

To the Editor:

ST. LOUIS, Nov. 23, 1884.

The amicable settlement recently effected between the members of No. 8 and the managers of the *Republican* of this city of the difficulties which have so long existed between them, is a source of sincere gratification to the friends of unionism in this city. The contest has been a long and bitter one, and now that it is ended, it is hoped and believed that everything will run smoothly in the future and to the satisfaction of all concerned. There is one fact, however, to which I desire to call the attention of the craft in general, and tramping printers in particular, and that is that the influx of compositors to St. Louis, since the arrangement, has been altogether out of proportion to the demand. As trade in this city is *very dull* at present, and as even a number of resident book and job printers are out of employment it can be inferred what prospects there are for new comers. You can safely warn all "elephant-trodden" pocketbook holders to stay away, unless they are prepared to follow Dr. Tanner's example and fast.

T.Y.P.O.

OUR PHILADELPHIA LETTER.

To the Editor:

PHILADELPHIA, Nov. 25, 1884.

Well, the election is over, and as predicted by your correspondent last month, Calvin Wells, proprietor of the *Press*, has been elected, and he is not the lowest elector on the republican ticket either, all on account of the penny-wise and pound-foolish manner in which Philadelphia Typographical Union took hold of the matter. However, we have to "live and learn."

Business, I am happy to say, seems to be pretty good here just now. I speak of the pressmen's branch of the art, for as said by a proprietor to me one day, "when the wheels are going round, that's the time I am making money," and as the wheels are revolving pretty actively, I therefore feel justified in saying the printing business is good at the present time, and will continue to be so until the first of the year; and as a general revival of business is predicted for the spring of 1885 the outlook for the future seems cheering.

The Pressmen's Union of this city has incorporated into its constitution, laws to the effect that any member who neglects his duties by reason of intoxication or proves incompetent to fill his situation, shall be expelled from the union.

We hear it whispered that Mr. Frank McLaughlin, one of the proprietors of the *Times*, of which Col. A. K. McClure is editor, is likely to be public printer under Cleveland's administration. Mr. McLaughlin is said by some old typos to be the best printer in Philadelphia. The *Times* is certainly a model of beauty in the newspaper line, and it has always boldly upheld associated labor.

C. W. M.

PRACTICAL SUGGESTIONS.

To the Editor:

CHICAGO, Nov. 26, 1884.

Type foundries, in their periodicals, are very prone to give advice and instruction to printers and to point out their faults. Now, I think it is but fair play for the printers to talk back once in a while, and point out some of the "mistakes" of type foundries.

1. In numerous styles of job letter with lower case there are no double letters, yet the foundries fail to furnish a compensating supply of the single letters with the fonts, especially in the case of the letter "f," which generally breaks very easily, and depletes the font before it is half worn out.

2. With the exception of the Johnson quotation furniture, the foundries continue to cast the largest sizes of metal furniture in the weakest manner. A piece 25x10 ems will have but one or two thin supporting transverse bars, while a piece 25x2 ems will be nearly solid its whole length, and so on down all through the shorter lengths.

3. Why don't foundries cast the figures in a job font to the aliquot

part of an em, say either a thick space, an en quad, two thick spaces, or an em quad, according to the nature of the font, and have them of uniform size in a font. What a help it would be when figures are desired to range in columns, make corrections or alterations in price lists, etc., and then figure quads would be unnecessary.

4. When mortises are made in advertising cuts they are sure to be a little more or a little less than even pica ems, necessitating the cutting of leads to fit. Why can't they be made even ems? The same idea will apply to the blocking of cuts.

5. If the figures 3, 5, 6, 8 and 9 in the geometric series had been made *just a little more* like each other, one character would answer for all.

6. In some of the later styles of faces, such as the "Bijou," "Elite," etc., the lower case "e" is scarcely distinguishable from the lower case "c."

7. Why don't the foundries make italic small caps to the book faces?

8. If the foundries were alive to their own interests they would see that their specimen sheets and periodicals reached the workmen in the different offices, instead of permitting them to get stuck on, or behind the desks of the proprietors.

9. As scripts are so largely used for date lines in letter and note heads, etc., an extra supply of figures 1 and 8 would be a valuable addition to those fonts.

S. K. P.

AN AUTOMATIC PAPER FEEDING MACHINE.

One of the most interesting achievements in its line is the recent inventing and perfecting of an automatic paper feeding machine by the Sedgwick Manufacturing Co., Poughkeepsie, N. Y. This is a machine for feeding sheet paper to printing presses, ruling and other machines, work which has always hitherto been done by human hands.

Notwithstanding the great improvements made in the art of printing and ruling paper, the production of the most rapid and perfect machines has been limited by the capacity of hand feeding. While apparently a very simple process, there have been many years of labor and study and thousands of dollars spent by inventors in their endeavors to overcome the difficulties in the way of feeding sheet paper by mechanical means, and although several machines for this purpose have, at different times, been introduced, none of them have heretofore proved entirely satisfactory.

Our attention was recently called to the Sedgwick automatic feeder in the blank book establishment of Mr. James Arnold, Philadelphia. This machine has been brought out within the last three years, and during that time has been in successful operation in some of the largest blank book and paper manufacturing in the country, feeding paper to the ruling machines with seemingly human intelligence, overcoming the difficulties, and fully satisfying all the requirements called for by the endless variety of paper, handling, with equal facility, the smallest or the largest sized sheet at any speed, up to the full capacity of the ruling machine, with a uniformity and precision of register impossible to obtain by hand feeding.

The machine is provided with an adjustable feed-table on which any quantity of paper up to ten or fifteen reams can be placed, the table being raised automatically as the paper is fed off, its motion being governed by the thickness of the sheets, thus keeping the paper at the proper height for feeding.

The most essential feature of the machine is the separating device, consisting of steel fingers provided with rubber, so constructed as to separate the top sheet from the pile in a manner similar to hand feeding, the pile being held firmly in place while the separated sheet is carried forward to the ruling machine or printing press, all the parts working with uniform precision and regularity. It is certainly very desirable to have a perfect practical feeder, as the work is very tedious and wearying by hand, and the manner in which the Sedgwick feeder performs its work is wonderful, combining economy of time and labor with efficiency of work.

THE *Sunday Democrat*, of Washington, D.C., has announced its suspension, to be resurrected as the *Evening Intelligencer*, and various other newspaper changes are rumored in that city.

SONG OF THE TYPES.

Sages! who bend 'neath a burden ripe,
Youths! where the rose still lingers,
Come list to the song of the rattling Type,
As it falls from the printer's fingers.

In a dismal garret and dingy town,
Where the Rhine's blue waves are flowing,
Old Gutenberg conjured my spirit down,
And set my footsteps going.

But I burst on the world like the morning's sun,
And lighted its midnight hoary,
And though my long journey has just begun,
I have flooded the globe with glory.

I have torn down the castles of crime and sin,
I have opened the dungeons of sorrow,
I have let the glad radiance of freedom in,
And scattered the legion of horror.

I have broken the fetters that shackled the mind,
Restored its strength and beauty;
And taught the proud princes that rule mankind
To lessen that power is duty.

I have rescued from prison the human soul,
And opened its inner portal,
Till it spurns indignant all human control,
And soars in its flight immortal.

In the realms of science I scatter light,
To the poor bear hope in his hovel;
For never again shall the world in night,
In darkness and slavery grovel.

Let no scholar despair, no warrior quail;
Oblivion's scythe is rotten;
For no more shall the words of wisdom fail,
Nor the hero's deeds be forgotten.

The minstrel's strings shall not break again,
And love shall ever be vernal,
For the maiden's vow and the poet's strain
Shall sound through the aisles eternal.

The old world shakes 'neath my giant tread,
And in vain tries to fetter my pinions,
For my voice speaks doom and my arm bears dread
To crumbling thrones and dominions.

Four hundred years their wails I've heard,
And the cause of their dire alarm is,
That the pen is mightier than the sword,
And the Types than a thousand armies.

Thrice welcome to me is the Land of the West,
Where Franklin's simple story
Proclaims in type how a king's behest
Was eclipsed by a Printer's glory.

Anonymous.

PAPER MAKING IN EGYPT.

In the suburb of Boulak, the river port of Cairo, is situated the Daira paper manufactory, which, before the late war broke out, used to employ regularly more than 200 hands, almost all natives. Most of the paper turned out is used for packing purposes in the khedival sugar factories; but there are also manufactured in the course of the year some 70,000 reams of very fair writing and printing paper, which more than supply the demand of the government offices of Cairo and Alexandria and the requirements of the national press. The writing paper is manufactured specially for Arabic writing, and to suit the peculiar style of Oriental penmanship; and therefore what is produced of this sort in excess of the requirements of the country is exported eastward

rather than westward, a good deal of it going to Arabia, and a few bales even to India for the use of our Moslem fellow-subjects. Linen and cotton rags are used to a certain extent in the Boulak factory; but the interior of the sugar-cane supplies the Cairene paper maker with an inexhaustible supply of very workable material; while, in the production of what is called "straw" paper in Europe, the hilfa grass plays a very important part. The Daira factory at Boulak enjoys a monopoly of this industry in Egypt; and in connection with it is the national printing office, also under the control of the same administration. The extraordinary turn for paper-making displayed by the Boulak Arab is, it need hardly be said, a hereditary accomplishment. They can point to a long line of ancestors who educated the east and west in successive stages of this useful art.—*London Globe*.

WHAT MAKES DURABLE TYPE-METAL.

Printers generally labor under the impression that type, to wear well, must be made of hard metal. This idea is now being combated as a fallacious one by the *Typographic Advertiser*, of this city, which, in an article on this subject, says that the deep-rooted notion that hard metal makes the most enduring type is a mistaken one. It boldly takes the ground that the claims for hard metal are a delusion and a snare, arguing—it is to be presumed from an intimate knowledge of the subject—that the mistakenly-prized hardness is obtained by using a large proportion of antimony, the cheapest of metals next to lead; and that hard type, under the action of the planer and the press, and also in the distribution, will suffer in the fine lines and serifs, these being easily broken. These grave objections can be readily obviated by making type of a metal that is not only hard but tough, and to accomplish this desideratum tin and copper, the most expensive metals in the alloy, should be freely used. For this expensive reason so much is said in praise of hard type and so little in favor of tough type. There are type foundries who do not mix the metal used by them, but purchase compositions prepared by metal dealers. Such makers of type do not know what proportions of metal have entered into the alloy, and the practical printer purchasing their type is really at the mercy of the metal dealer, to whose profit it is to dispose of a composition making very hard type.—*Printers' Circular*.

CHINESE PRINTING.

The blocks are all of the same size, about eight inches by twelve inches, and about half an inch thick. Each block represents two leaves of four pages of the book, being engraved on both sides. The blocks for a complete work can thus be stowed away in a very small compass. The cost of engraving a page of the wooden block is said to be but little more than the expense of setting up a page of Chinese type and preparing it for the press. An edition of one copy can be printed if no more are required, and thus the expense of keeping a large stock of printed books on hand, some of which might eventually have to be sold as waste paper, when they grew out of date or revisions had to be made, as is the case among ourselves, is entirely avoided. Any errors or misprints that may be discovered can, as a rule, be corrected on the blocks with but very little trouble. A skillful printer can print, by hand, 5,000 leaves of two pages each in a day, using no press or machinery whatever. He supplies his own tools, and receives as wages about twenty-five cents a day. The paper ordinarily used is white, and of the best quality, although a yellowish kind is also made use of, at a reduction of twenty per cent on the selling price. The books are bound in the usual Chinese style and fastened with white silk thread. They present an appearance which satisfies the taste of the most fastidious native.—*London Nature*.

The *Tischler Zeitung* gives the following method of testing glue: Carefully weigh a piece and suspend it in water, at a temperature not exceeding 10° C. (50° F.), during 24 hours. The coloring matter is then precipitated, and the glue swells in consequence of the absorption of water. On removing the glue from the water, the increase in weight will be found to be in proportion to the quality. The weight of the coloring matter can also be ascertained by weighing the glue a second time after it has been thoroughly dried.—*Chron. Industr.*

ITEMS OF INTEREST.

To remove red ink from paper without defacing the writing, use cold aqueous or acetic acid, solution of calcium hypochloric, bleaching powder, or eau de javelle.

PAPER barometers can be made by soaking paper in a solution of chloride of cobalt. It becomes hygroscopic, and if exposed to the air will change from blue to pink.

A NEW method of producing photo-engravings direct from photographs has been perfected by the Russell Photo-Etching Co., 117 John street, New York, which gives remarkable results.

W. GRAVES, of Vincent Works, Leeds, England, has patented a new varnishing attachment, which is highly spoken of, and which is useful alike on both letter-press and litho-machinery.

AN engineer of Berlin, has invented an apparatus by the use of which matrices for stereotyping may be obtained by punching letters into prepared pasteboard, thus dispensing with the setting up of type.

PARCHMENT LIQUOR.—With a solution of gutta percha in ether, statues, engravings, etc., are lightly covered in order to preserve them from dust and grease. It is sufficient to dry them with a damp towel.

SUIT has been commenced in the United States Circuit Court, Trenton, N. J., by C. B. Cottrell & Sons against C. Potter, Jr. & Co. for the infringement of letters patent for improvements in air-spring mechanism of printing presses.

A PAPER-CUTTING machine has been patented by Robert Atherton, of Paterson, N. J. In combination with cutters or knives are devices for transmitting motion to them from a drum or roller revolved by the paper passing over it, to cut a roll of paper into bands, or strips, as rapidly as the paper is rolled, without danger of tearing.

A FIRM in New York propose to lease or buy two gas wells at Homewood, Pennsylvania, and erect beside them a large factory for the manufacture of lampblack. The article is largely in demand for the manufacture of blacking, printers' ink, and various other things in which it is an ingredient. Natural gas has been found to produce an extra good lampblack.

A METALLIC binder or fastener for inclosing the ends of a series of sheets of paper or other material is the invention of Jessie F. Tapley, New York City. It consists of a strip of metal with side portions bent at right angles to the closed or rear portion, the side portions being provided with teeth bent inwardly and adapted to penetrate the sheets from opposite sides thereof.

NEWSPAPERS printed at sea are not uncommon. The practice of publishing a paper on board ships was inaugurated on the steamer Great Britain, which started for Australia on August 21, 1851. The seaborne journals do much to relieve the monotony of the passage, filled as they are with stories, burlesque telegrams and jokes by the passengers, and all the drift of spicy incidents that happen from week to week on shipboard.

A COPY-HOLDER and book-rest has been patented by G. Weinschenk, Cambridge, Mass., which seems to meet a want felt by the compositor. The frame is made with a forked handle, which can be easily adjusted to the case, and turned from left to right as may be desired. Books as well as single sheets of paper can be held upon it, and the copy is kept from being soiled by its use. It has been in practical use by the inventor for a long time.

A TYPE-SETTING machine has been invented by a resident of Ilion, N.Y., which is represented as quite perfect. Unless, however, it can manage to correct the writer's rhetoric by substituting here and there a word which he did not use, had no thought of using and would not use under any circumstances, for the word he took especial pains to write plainly, this machine must prove a lamentable failure. It can never hope to compete with the intelligent compositor.—*Boston Transcript*.

A MORE economical method of producing paper pulp is claimed to be realized in the use of a new and ingenious machine, by which the wood is shaved off so finely that it is ready to go at once into the paper engine. It takes a piece of log twelve inches in length, which is revolved at a speed of 1,000 revolutions per minute, and a sharp cutter

shaves off a shaving so thin that it would take 750 thicknesses to make an inch. The slice is about one-fourth the thickness of an ordinary sheet of writing paper. The knife is constantly sharpened so that the wood will be cut evenly.

A MANUFACTURER is producing an excellent substitute for glue for the use of bookbinders; it is called gum gluten, and is free from smell, very adhesive and strong. We were informed by a well known book-binder that formerly he used about one hundredweight of glue per month, whereas now he only uses one hundredweight of gum gluten in six months, whilst the cost of the latter material scarcely exceeds that of glue. Therefore by its use some ten hundredweight of glue can be saved in a bookbindery in a twelvemonth. It is noteworthy that mice and rats will not eat it.—*Ex.*

ZINC PLATES as substitutes for lithographic stones are now in common use, and an ingenious and cheap method of producing a stony surface upon a metal plate, to be used in a lithographic press instead of the ordinary stone, has recently been patented. Slacked lime is added to a water bath, which is afterwards treated with carbonic acid. A saturated solution of bicarbonate of lime is thus produced, which can be drawn off as a clear liquid. A carefully cleaned metal plate is moistened with this liquid by a spray apparatus, and then dried by heat. The operation is repeated until a deposit of limestone firmly adheres to the plate, when it is ready for receiving the lithographic ink.

PRINTING BY SOLAR HEAT.—“Certain ingenious Parisians are,” says *Engineering*, “experimenting with an apparatus for utilizing solar heat and using it in lieu of coal. To effect this the sun's rays are concentrated by a reflector, which so moves as to keep the rays focussed on a vertical boiler, which is thus heated, producing steam enough to drive a press. In a recent experiment the sun-made steam drove a large press, which struck off several thousand copies of a specimen newspaper. Parties interested in thus obtaining the cheapest attainable heat appear well satisfied with the first test, and are in high hopes of soon being able to generate steam without coal or any other mundane fuel.”

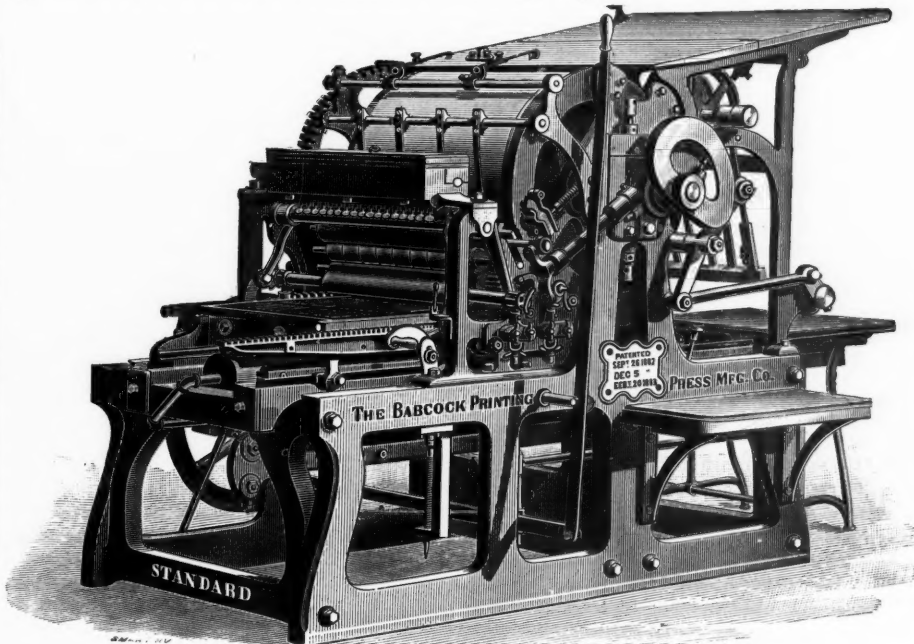
HOW DEXTRINE IS MADE.—This is prepared from starch, by the action of heat, diastase, or acids, and is sometimes called starch gum, or British gum. As usually sold, it is a whitish insipid powder, having a pleasant odor of cucumbers. It is soluble in cold and hot water, and in very dilute alcohol, but it is insoluble in strong alcohol and ether. In France it is largely employed by pastrycooks and confectioners, and by surgeons as a stiffening for the splints used for fractured limbs. It has also been made up into roundish masses and sold for gum arabic. It is said to be used for “gumming” postage stamps, but careful trial convinced Phin that the best specimens in the market are not equal to good gum arabic. It is cheaper, however, and, for ordinary purposes, is strong enough. Dextrine is easily prepared for use. It may be mixed with cold water and stirred or beaten for a few moments, when it will dissolve very completely. It may be used immediately, or it may be boiled. The latter improves it.

ALL manual labor may be divided into rude, dexterous and skilled labor. The first requires only, or mainly, the strength or patience of the stupid plodder. The second requires nice finish and celerity of execution; but the work is all done by “rule of thumb,” that is, in ignorance of principles. Subdivision of labor is especially favorable to the production of dexterous workmen. The third requires both dexterity and a knowledge of underlying principles. It is theory and practice united, and it enables the workman to adapt himself to new conditions, and always to do the best thing in an emergency—to improve old methods of work or devise new ones. It may be said, in general, that, while the rude laborer earns one dollar, the dexterous laborer will earn two dollars, the skilled laborer three dollars; all working with their hands. In some varieties of labor the difference is much greater than this. For the rude laborer there is no hope of promotion, for the dexterous laborer the prospect is limited; but the skilled laborer, master of his business in theory and practice, may count surely upon advancement. In dull times the skilled laborer is the last to be discharged; yet he is the one who has savings to rely upon—the one who can most readily adapt himself to a new occupation.—*Stetson, Technical Education*.

BABCOCK PRINTING PRESS MFG. CO's

Drum Cylinder, Two-Revolution AND Lithographic Pat. Air-Spring Presses.

New Style Elevated Fountain, allowing easier access to forms and furnishing better distribution than the old style.



Topless Sheet Delivery, Perfect Register, Rapid, Strong, Durable, Handsome, and Guaranteed in all respects.

BABCOCK "STANDARD" PRESSES.

These Presses are built from new designs combining strength and durability with increased capacity for speed, and embody several new and very important improvements, among them the following:

NOISELESS GRIPPER MOTION, with PERFECT REGISTER. AIR VALVE, for removing the spring when desired, and invariably restoring it when the press is started. **THE SHIELD,** which effectually protects the Piston and Cylinder from paper, tapes, etc., that might fall upon them and produce injury. **THE PISTON** can be adjusted to the size of the Air-Cylinder, so that the wear of either can be easily compensated. This easy, positive and perfect adjustment prevents leaks and vacuums and secures evenness of wear in the Air-Spring. **THE ROLLER-BEARING** has the following advantages: Any single roller may be removed without disturbing the others. All of the rollers may be removed and replaced without altering their "set." When

desired, the form rollers may be released from contact with the distributor and type without removing the rollers from their bearings or changing their "set." **THE INK FOUNTAIN** is set very high, allowing easy access to the forms, and furnishes much better distribution than the old style. These improvements will commend themselves to the approval of printers and pressmen.

SIZES AND PRICES OF "STANDARD" PRESSES.

No. 1, Size bed 19 x 24.....\$1,100.00	No. 5, Size bed 29 x 42.....\$1,600.00
2, " 20 x 26.....1,250.00	6, " 32 x 46.....1,650.00
3, " 25 x 34.....1,400.00	7, " 33 x 51.....1,750.00
4, " 27 x 39.....1,525.00	8, " 36 x 53.....2,200.00
	No. 9, Size bed 38 x 56.....\$2,500.00

THE BABCOCK NEW TWO-REVOLUTION PRESS

DELIVERS THE SHEETS IN FRONT PRINTED SIDE UP.

In bringing out a series of Two-Revolution Presses, the BABCOCK PRINTING PRESS MANUFACTURING CO. has sought to not only combine the best features known in other machines of this class, but also to add a number of valuable improvements which greatly increase the durability, usefulness and convenience of these Presses. In addition to the general features of the Babcock Drum Cylinders enumerated above, the Two-Revolution Presses deliver the sheet in front printed side up, without the use of either fly or swinging arms. They also have the new backing-up motion, ena-

bling the pressman to back up his press while the belt is on the loose pulley and without the aid of either gears or friction—a most valuable improvement. The mechanism for raising the cylinder is remarkably simple—an important fact when the tendency to wear and lost motion in the joints is considered, and also requiring less power to run. These Presses are made very heavy for speed, and in every respect thoroughly constructed.

THE BABCOCK PATENT AIR-SPRING COUNTRY PRESS.

The best Newspaper and Job Cylinder Press for the price in the market. Size of bed 32 x 46 inches, will work a 6-column Quarto Newspaper without "cramping." It is simple, strong, and in every way splendidly constructed. It combines all the latest improvements for fast and good work, together with beauty in design and

solidity in all its parts. With its other qualifications it is capable of a high rate of speed; has perfect register, fine distribution, runs easily and almost noiselessly. It is adapted to all kinds of work, having Air-Springs and Vibrators on Form Rollers. Price, \$1,100. Steam Fixtures, \$50 extra.

The best material which the market affords are used in all our Presses, and are adapted and combined with a special view to secure the best possible wearing qualities. All the running parts are made and adjusted with extra care. All the patterns are new, and carefully studied with a view to combining simplicity, strength and durability. All gearing is accurately cut with new and improved machinery, with cutters made on scientific principles. Prices include boxing and delivery on cars at New London, Conn.

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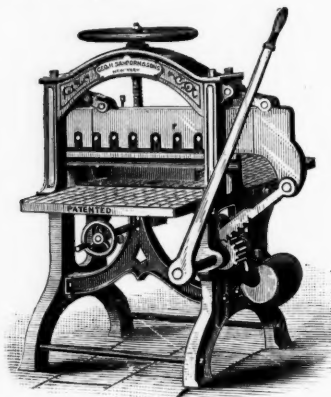
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PERSONAL.

WE acknowledge the pleasure of a call from Mr. A. C. Rhodes, Kansas City, Mo.

MR. C. POTTER, Jr., of the Potter Press Co., New York, has been in Chicago for the past few days on business interests.

MR. W. P. LINDSAY, of the Illinois Type Foundry, is still confined to the house, though slowly recovering from his recent illness.

MR. JOSEPH SPRAGUE, of Geo. Mather's Sons, has returned from a western trip, and reports business improving. Glad to hear it.

MR. GEO. E. SANBORN, of the firm of Geo. H. Sanborn & Sons, 60 Beekman street, New York, is spending a few days in our city.

MR. E. BLAKE, western representative of C. B. Cottrell & Co., has returned to town, after a two weeks' absence.

MR. OGDEN BROWER, New York, of the Campbell Printing Press Manufacturing Company, has been spending a few days in Chicago.

MR. A. P. LUSE, of the firm of Marder, Luse & Co., type founders of this city, sailed from New York on the 22d ult., intending to spend the winter in England.

MR. H. T. MCMURTREY, the popular and efficient secretary of Union No. 8, recently favored us with a call. He reports trade as being very dull in St. Louis.

MR. W. P. STORMONT, who has recently embarked in the printing business, in Washington, D. C., paid the office of THE INLAND PRINTER a visit a few days ago.

MR. G. W. HANNA, formerly with Marder, Luse & Co., of Chicago, and now manager eastern advertising department of Palmer & Rey, type founders, 405 and 407 Sansom street, San Francisco, spent a pleasant hour in our sanctum a few days ago.

LOCAL ITEMS.

A PRINTING press has just been shipped to the Denver *Tribune*, Denver, Col., by the Marine Engine Works, of Chicago.

THE Campbell Printing Press Manufacturing Co. have temporarily secured two large floors of Shniedewend & Lee for their machine shop.

THE Shniedewend & Lee Company has succeeded the firm of Shniedewend & Lee, the company assuming all the liabilities of the old firm.

BUSINESS in the printing line in Chicago continues exceedingly dull, and tourists, of which there is now a surplus in the city, are advised to stay away.

MR. JOHN P. WYANT, a well known job printer of this city, is attending the New Orleans Exposition in the interests of the Chicago *Inter Ocean*.

THE Monotype Printing Company, Chicago, has been incorporated. Capital stock, \$200,000. The incorporators are Freeman Lane, I. S. Dement, T. W. McBarn.

THE Adjustable Blank Book Manufacturing Company has been incorporated at Chicago, capital \$100,000. The incorporators are I. L. Stover, J. R. McCandless and Wm. West.

THE convention of lithographers, called for the 17th of November, in Chicago, and heretofore mentioned in our columns, has been postponed to a time to be mentioned in the future.

FUCHS & LANG, the well known manufacturers of printers' bronze powders and lithographic supplies, have opened a western branch at 75 Dearborn street, under the charge of Hans Fuchs. We welcome him to our city.

THE struggle for the ownership of the Chicago *Times* between the wife of the late proprietor and his relatives has commenced, and the indications are that before it is decided the lawyers will receive the price of a good many yearly advertising contracts.

THE Bullock Printing Press Company, of this city, has just been organized with a cash capital of \$100,000. The officers of the company are J. G. Knapp, president; Conrad Kahler, vice-president and superintendent; Robert Tarrant, secretary and treasurer; and William H. Kirkhoff, general manager; a combination which is hard to beat.

THE Chicago Paper Company has removed, by reason of fire, to the commodious premises, 140 and 142 Monroe street, where its managers are prepared to fill all orders from their old customers, and as many new ones as may choose to favor them with their patronage.

REMOVAL.—Snider & Hoole, manufacturers of bookbinders' materials, of 101 and 103 Walnut street, Cincinnati, intend to remove their headquarters to 152 Monroe street, Chicago, as soon as arrangements can be perfected. THE INLAND PRINTER congratulates them on the good judgment displayed in this movement.

CO-PARTNERSHIP.—A co-partnership has been formed between Geo. H. Taylor and Mr. H. M. Harper, under the name and style of Geo. H. Taylor & Co., for the purpose of carrying on a general commission business for the sale of paper, etc. Both gentlemen are well and favorably known to the business community.

WE acknowledge the receipt of a price list and specimen book of type, presses and printers supplies, manufactured and sold by the Union Type Foundry, 54 and 56 Franklin street, Chicago. It is an elegantly printed book of 336 pages, and contains some valuable estimates of the cost of furnishing various sized newspaper and job offices.

MESSRS. OSTRANDER & HUKER, 81 and 83 Jackson street, are now turning out some of the best specimens of the "old style" Gordon presses ever offered to the trade. As before stated, the reputation of this firm for turning out first-class work has long been established, and all customers can rest assured that their guarantee may at all times and under all circumstances, be depended on.

S. P. ROUNDS, JR., & Co., 186 and 188 Fifth avenue, are now prepared to promptly execute all orders for their standard metal furniture in fonts of 25, 50, 75 and 100 pounds. It is cast to pica body, with solid end bearings, top and bottom alike, thus securing at the same time strength, durability and lightness. This firm is also manufacturer of Reed's "Peerless" Roller Composition.

MESSRS. SHNIEDEWEND & LEE, of 303-305 Dearborn street and 46-48 Third avenue, announce to the trade in general that they have been appointed western agents for MacKellar, Smiths & Jordan (Johnson Type Foundry), Philadelphia, and that there is now on the way a large and most complete stock of type, borders, cuts, rules, etc., including all the productions of this celebrated foundry, which they will keep in stock. It gives us pleasure to congratulate both the appointors and the appointees.

WE desire to call the special attention of our readers to the advertisement of "THE CHICAGO" paper cutting machine manufactured by E. P. Donnell, of this city. As it dispenses entirely with the cutting stick, and consequently the knife-dulling wooden surface, which renders almost a daily sharpening a necessity, its advantages in this respect can be appreciated by any practical printer. It is simple, durable, and easily operated. Its clutch and throw-off is perfection, can be operated by a child, and is noiseless and positive. A visit to his establishment, 158 and 160 South Clark street, will amply repay the intending purchaser.

A NEW LITHOGRAPHIC PRESS.—The Campbell Printing Press & Manufacturing Company, of 273 Dearborn street, have recently put on the market a new lithographic power press, which it is claimed runs 20 per cent faster than any press in the market, and is capable of doing the fine grades of commercial work heretofore produced only on Boynton "Rotaries." It is also claimed that the small size of the cylinder enables it to give a much finer and sharper impression than any other lithographic press, and for the same reason the sideways spreading of the sheets is reduced to a minimum, thus making the register all the more accurate.

DESTRUCTIVE FIRE.—On Monday night, Nov. 24, fire was discovered on the premises, 181 Monroe street, occupied by the Chicago Paper Company, C. H. Brenan & Son, and Rubel Bros., printers. Although the engines speedily responded, the building, owing to the inflammable nature of its contents, was soon wrapped in flames. The loss of the Chicago Paper Company (which occupied the basement, first and fifth stories), by fire and water, amounted to \$60,000, fully covered by insurance; C. H. Brenan & Son's loss on stock and material, outside of their insurance, will be at least \$2,500, while Rubel

Bros. estimate their loss at \$15,000, of which \$10,000 is covered by insurance. With true Chicago pluck and characteristic energy, the succeeding forty-eight hours found all these firms in new quarters, prepared to execute all orders committed to their trust.

THE LUXURY OF TRAVEL REDUCED TO A SCIENCE.—Those who have traveled over the Chicago, Burlington and Quincy Railroad, and compared its advantages with those of other lines, know that it is one of the smoothest, best equipped and substantially built roads in the country, while its officials have long been noted for their courtesy to passengers. It has recently established a through line direct to St. Louis, by which its "Fast Owl Express," leaving Chicago at 8.30 P.M., arrives in that city at 7.45 A.M.; returning leaves St. Louis at 8 P.M., and arrives in Chicago at 7.30 the following morning. The sleeping cars attached to these trains are veritable palaces, though those preferring can secure reclining chairs without extra cost. The popularity of this route has already been established, and we expect ere long to see it take precedence over all others.

THE RISE IN PAPER.—A visit to the principal warehouses in this city leads to the conclusion that the predicted *excessive* rise in the price of white paper will not materialize. It is true that the finer grades, into the composition of which linen rags largely enter, have risen 10 per cent, and as Secretary McCullough has restored the embargo on rags from foreign ports a still further advance in the prices of these qualities may be anticipated, yet there is nothing in the situation to warrant the views of alarmists who prophesy ruin to the printing and publishing business. In support of this statement we may mention the fact that the attempt made at a meeting held in this city October 22, of the western division of the papermakers association to reduce the product of the mills 20 per cent, closing from Friday night at 12 o'clock to 7 o'clock Monday morning has failed, and they are still running full time.

A FESTIVE OCCASION.—The members of Pressmen's Union No. 3 never better maintained their reputation for good fellowship and joviality than on Friday evening, November 21, when they and their friends gathered together for the third time in ten years, at Brand's Hall, to trip the light fantastic toe, and with their wives and sweethearts enjoy a social evening. About nine o'clock, the orchestra, under the direction of Prof. Pond's baton struck up the "Grand March," which was headed by the master of ceremonies, who was followed by a line of fair women and brave men. The toilets of the ladies were, for the most part, handsome and in exceeding good taste. At one o'clock the doors of the dining room were thrown open, and the company seated themselves at four large tables, upon which were lavishly spread all the delicacies of the season, which were provided by Mr. C. M. Moore (an ex-member). The bill of fare, an elegant specimen of engraving and the "art preservative," was printed in colors, and the viands were furnished by Mr. J. Burke, also an ex-member. After partaking of a hearty repast, the guests filed back to the ball-room, where, under the sweet strains of music, they enjoyed themselves until the "wee sma' hours." During the evening the little daughter of Thomas Nelson, a member of the craft, favored the company with the Highland Fling, and also the Scottish Sword Dance, which were received with applause. Altogether the occasion was one long to be remembered, as one of unalloyed enjoyment. We must not omit to state that Mr. Fred. Miller contributed in no small manner to the success of the evening's pleasure.

OF INTEREST TO THE CRAFT.

PHILADELPHIA has fourteen Sunday papers.

THE Kalamazoo (Mich.) *Daily Gazette* appeared Nov. 21st printed in red ink.

THE firm of Campbell & Son, publishers, Toronto, have failed. Liabilities, \$300,000.

THE Detroit Typographical Union has changed its time of meeting to the first Sunday of each month.

BUFFALO Typographical Union has adopted the Detroit rule of permitting advertisements to be set by the week.

THE *Labor Union* is the name of a new labor journal recently started in Worcester, Mass. We wish it success.

THE office of the North Platte *Nebraskan* was struck by lightning a short time since, but luckily no one was injured.

THE Zanesville (Ohio) *Courier* pays its printers \$1.05 per day. The savings banks of that town must be doing a land office business.

IT took twenty years to make the St. Louis *Republican* a union office, but then the game is worth the name, as it has come to stay.

MR. ADOLPHUS BENNETT, of the government printing office at Washington, was recently married to Miss Kate N. Flint, of Fulton, N. Y.

MR. GEO. FISHER, printer, has been elected a member of the house of representatives for the city of Wellington, New Zealand, by a majority of 250.

THE Boston *Herald* is said to have printed a larger edition than any other paper in the United States on the morning after election. The edition was 302,030 copies.

WANTED.—Copies of THE INLAND PRINTER Vol. 1, Nos. 2 and 12. W. G. Hegeman, 51 Asylum street, New Haven, Conn., or Secretary INLAND PRINTER, Chicago.

WE have received some very meritorious specimens of ornamental rule work as applied to cards and bill heads, from the press of A. Whipple, 323 North Third street, St. Louis.

IT has been figured that in St. Louis there is one copy of a daily paper printed to every four people; in New York, one paper to a little less than two persons; in Chicago, one paper to every two inhabitants.

THE latest acquisition to Boston journalism is the *Evening Record*, a one cent daily. It made its appearance unannounced, but attracted immediate attention by its intrinsic merits, and has made many friends.

ELIJAH RAWSON, a compositor in the office of the *United States Miller*, Milwaukee, Wis., now enters his claim as the oldest continuous type-sticker in the United States. He has been at the case fifty-four years. Next.

JOHN B. TOLMAN, a veteran printer, of Lynn, Mass., has given the Young Men's Christian Association of that city an estate valued at \$30,000, stipulating that the income shall be used in promoting the cause of temperance.

A REPUBLICAN evening and Democratic morning paper at Milwaukee used the same "rooster" for four days in succession after election, the returns varying in favor of the former during the day, and changing to the opposite side at night.

WE are authorized to announce that all inquiries regarding the workings of Mr. Rastall's system of type measurement, referred to in our present issue, addressed to the editor of THE INLAND PRINTER, will be answered through its columns.

THE cholera microbe is said to be shaped just like a comma. We are going to throw out every comma in the news room. Just suppose a microbe got in by mistake and the compositors set it up and gave some "constant reader" the cholera!—*Ex.*

JUSTICE, originally established by Typographical Union No. 9, as a boycotting sheet against the *Courier* has ceased publication. Its proprietor, Thomas Gawley, secretary of the state trades assembly executive committee, has resigned the presidency of Buffalo union, and has been succeeded by James B. Knapp, an able and earnest unionist.

A DENVER grand jury has found two indictments against Brick Pomeroy, and a requisition was issued for his return from New York City, where he is now editing the *United States Democrat*. Brick is accused of perjury in swearing falsely to his bills for advertising the Atlantic & Pacific Tunnel scheme in the *Great West*, which he edited in Denver.

THERE are 250 printing presses actually at work in Denmark, and the number of books published in the kingdom within the last twelve years amounts to 10,900, which gives one book to every 2,475 inhabitants. Books of Mormon tendencies had the largest sale, the circulation of one of them reaching 111,000, and this among a population of only two millions.

MESSRS. E. P. COBY & Co., printers, 95 William street, New York, have issued a presidential card which contains considerable information

of a statistical character of interest at this time. It gives the principal officers of the government, with salaries; population of the United States from 1780 to 1880; the national debt from 1791 to 1884; the electoral vote of the states; presidential vote from 1789 to 1880, etc.

WE have received No. 4 of Vol. I of a new paper called *The Labor Leaf*, emanating from Detroit, in the interest of wage-workers. It is well edited, cleanly printed, and proof-read with more than ordinary care. We mark with satisfaction the growing disposition of our various labor organizations to advocate their views and principles by means of labor journals. It is the only way they can educate the masses to unity of action.

THE Typographia (German-American Typographical Union) pays \$5 per week sick benefit; \$200 death benefit, and \$25 on death of wife; \$7 per week strike benefit, and \$5 per week unemployed benefit. The dues of a member are 35 cents per week and a tax of 25 cents upon the death of a member. The local unions pay a per capita tax of 25 cents per month to headquarters, and have the system of equalization of funds in operation.

FOREIGN.

"GALIGNANI'S MESSENGER" and the *Morning News* (Paris), have been temporarily opened to members of typographical organizations.

ONE morning recently when the London *Times* published a long letter from Khartoum, the foreign telegrams in that issue cost £2,000.

THE French house of Marinoni, manufacturers of printing and lithographic presses, has sold, says the *Bulletin de l'Imprimerie*, 7,600 of its rotatory presses.

THE Amalgamated Trades Unions of Halifax, Nova Scotia, have been successful in their boycott of the Halifax *Daily Herald*, and it has now become a union office.

THE mayor of the city of Frankfort-on-the-Main, in Germany, has ordered that only in five different sizes can posters be placed on the walls, etc., in that city. The use of red paper for a poster is positively prohibited.

THE first scale of prices for the payment of compositors working by the piece was formed in London in 1785, when the master printers accepted five out of eight propositions submitted to them by the journeymen.

A CORRESPONDENT states that the only printers who have suffered from cholera in Paris are five, who were taken ill in the offices of the *Moniteur*, on the Quai Voltaire. Four of them have recovered. The other died after a few hours illness.

THE editor of a daily paper in Russia recently gave the following reason for its irregular appearance: "The paper is often in want of information, often in want of copy, often in want of writers, often in want of money; and sometimes, when it has all these, it is in want of readers."

SIR JOHN ARNOTT, a benevolent Scottish merchant, settled in Cork, has, since becoming proprietor of the *Irish Times*, erected from forty to fifty substantial cottages, in a healthy part of the town, for the working printers connected with his paper, which he lets to them at a merely nominal rent.

AN instance has lately come to notice as to how German printers are pestered by the police. At Frankfort the head of the police has issued orders that posters must in future be printed on paper of one of five or six sizes only, while pink paper is quite prohibited except for official announcements.

THREE practical printers have just been appointed members of the printing committee of the Victoria (N.S.W.) legislative assembly for the present session. The British parliament might with advantage copy this example, and include among the members of the printing Committee some of the M.P.'s connected with the craft.

THE Leipsic type founders, Schelter & Gieseke, have put on the market a set of borders in the style of Renaissance, to be known as the Holbein borders, designed by a celebrated artist and executed with the greatest care. The sample sheet sent out is printed in black and pale red on white, and for grace and artistic effect, as well as historical consistency, merits high praise.

ONE of the most remarkable establishments of the capital of Turkey is the great Turkish printing house, founded by the first chamberlain of the Sultan, Osman Bey. It contains excellent presses and employs from 200 to 300 workmen, among whom are many Austrians and Germans. Among its accessories are a photographic establishment, a bookbindery and a typefoundry. It is the only important establishment of the kind in Turkey.

THE directors of the Manchester (England) Coöperative Printing Society have recently completed the extension of their works in New Mount street. This firm now possesses one of the most commodious and best equipped printing establishments in that city. Some idea of its size may be learned by the fact that the dimensions of the building are 120 feet long by 50 feet in width, and five stories high. Additional machinery has been laid down to meet the requirements of an increasing trade, notably a quadruple-demy perfecter.

IN an article on "The Growth of Bombay Industries," the *Bombay Gazette* says: "Paper-making is an industry which has for many years been favorably regarded by enterprising capitalists, but the chief obstacle is the difficulty of obtaining a site where a sufficient supply of pure water could be had. The only paper mill in Bombay is a small one at Girgaum, which turns out about 1,600 lbs. of paper, of a quality suitable for native account books, every day. All the production is sold at remunerative prices, but the supply of water is restricted to a well, and this limits the production. There is a paper mill at Lucknow which pays regular dividends. The Bally mills, in Calcutta, have been established for many years and pay ten per cent. Some new paper-making establishments are about to be started at Lake Fife, near Poonah, and at Karakwasla, on the banks of the Mutha."

OLD-TIME PUBLISHERS AND PRINTERS.—Of English newspapers we read, "in the year 1780, in London alone, 63,000 were printed every week," and we are told how "Woodfall, the printer of the *Advertiser*, once the most famous newspaper in London," defeated the attempt made by the government to discover who "Junius" was. The Captain says: "It is not at all uncommon to see a printer put in the pillory or dragged to jail," and although by naming the author they would escape these indignities, they never did so without his consent. "The Rev. Horne Tooke, curate of Brentford, was so generous as to avow himself on an occasion of this kind in the year 1778." One author once saw a printer in the pillory surrounded and protected by a countless multitude of people, who cheered him and crowned him with garlands and flowers, and gave him refreshment, putting it into his mouth, as his hands were fastened. Persons of rank stood by and talked familiarly to him with cheering and encouraging words.—*London Society*.

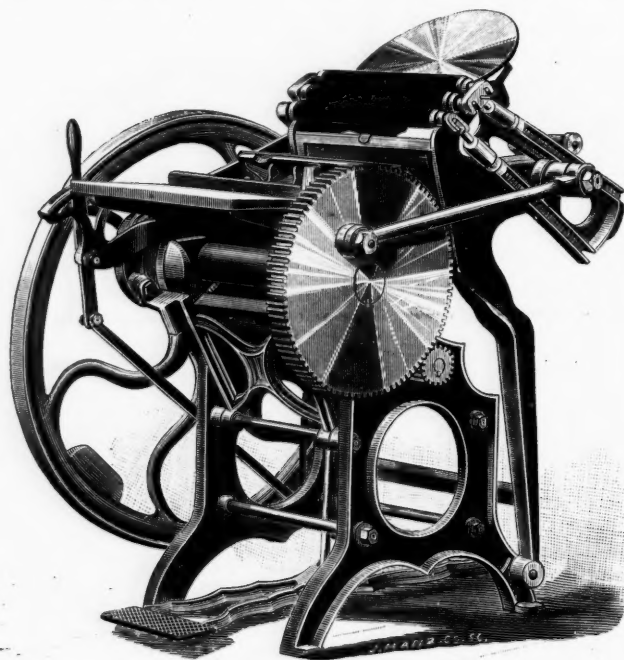
COLLECTORS of typographic literature, as well as gatherers of everything rare that has ever been printed, have of late years been eager in the quest for printers' devices. Such collections are few in number and of limited extent, and our German contemporary, the *Journal für Buchdruckerkunst*, announces the discovery of what is probably the largest collection of printers' devices to be found in the world. It is carefully kept in the ducal library at the Wolfenbuttel and contains nearly forty thousand specimens. Baron August von Berlepsch, deceased, formed the great collection, and, after his death, it was bought for the library where it is now. The specimens have been classified according to the respective countries to which the printers belonged. By this means of classification the devices of the printers of any one nation may be readily consulted, and conveniently studied and compared. All the impressions are originals, but some have been cut out and mounted, while the others still grace the title pages on which they were first printed. In the latter instance, one sees at a glance the device, name of the printer, name of the book and year of publication. It is understood that a new classification of the devices is soon to be undertaken; but better than that is the assurance that the collection is likely to remain intact for a long time to come. The library at Wolfenbuttel is rich in rarities in the way of books and manuscripts; in the book collection are 14,000 Bibles and a large number of incunabula. [There is a large but little known collection of printers' devices, as well as old book title pages in the British Museum among the Bagford papers.]—*British and Colonial Printer and Stationer*.

A. N. KELLOGG'S PATENT STEREO-PLATES.

The writer recently visited the establishment of the A. N. Kellogg Newspaper Co., 79 Jackson street, Chicago, and was much interested in the details given regarding their stereotype plates of reading matter. It appears that they are prepared to furnish about everything in the way of reading, from telegraphic news for daily papers to short miscellaneous articles for weekly papers, including serial stories, short tales, poetry, religious reading and sermons, and semi-news matter of particular interest. Their plates are made with the latest improved machinery, to be used in printing on their patent bases and held in place by Pratt's patent clasps, the latter appliance insuring their firmness and safe position in the forms to be printed from. Altogether the Kellogg plates are the most perfect we have seen, and publishers who need such articles ought to examine the Kellogg outfit. We are informed that they have just put on a handsome new dress of bourgeois, brevier and minion type of sensible and serviceable faces. The firm is a progressive one and deserves the patronage of the trade for what they have done to advance the interests of the newspaper world.

THE "CHALLENGE" JOB PRESS.

By reference to the accompanying illustration it will be seen that the "Challenge" Jobber, manufactured by Shniedewend & Lee, 303-305 Dearborn street, Chicago, is similar in many respects to the "Old Style Gordon," which has always been a favorite with printers. While retaining the good points of the original machine, all the strain-bearing parts have been materially increased, and the gears made wider, which im-



THE "CHALLENGE" JOB PRESS.

provement gives more bearing surface in cam and cam roller. It also has the Shniedewend & Lee patent impression throw-off, the only one yet invented for this style of press, that is perfectly at rest when the press is running, as well as an improved motion for ink disc, and many other advantages which will be duly appreciated by the practical printer. The "Challenge" is made from entirely new patterns, each part made to jigs and templates so as to be interchangeable. All the materials and workmanship are of the very best, and are an honor alike to the firm and city which turns them out, being equal in every respect to any press manufactured.

THE KEYSTONE QUOIN.

This quoin, which is a safe, simple, cheap and durable lock-up, possesses the following special advantages, which will be duly appreciated by every intelligent printer:

1. It is a complete quoin, not in pairs, or separate pieces, but permanently joined together, and in such a manner that the sides or wedge cannot become separated, the rivet uniting them, being a square one, neither can they assume any position other than as shown in above cut, except to contract or expand in width by motion of wedge, hence always ready for use.

2. The outside parts of the quoin, which come in contact with the chase, side-sticks or furniture of a form, have no motion in "locking up" except a lateral one, the wedge alone moving, thereby avoiding the danger and annoyance of disturbing the furniture, wearing the side sticks, or skewing the type.

3. It has a greater bearing surface than any quoin before produced, and the principle of construction is such that unlocking by jarring out while in transit from the composing room to press, or while in motion upon the press bed, is effectually avoided.

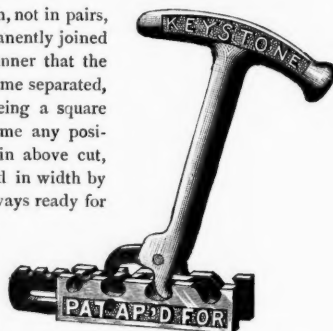
4. It may be locked in galley work sufficiently without the use of key or wrench. In the chase it may be locked with the shooting stick or with the wrench, and a tight lock-up made with less exertion than with any other quoin or key in the market, with the entire length of the quoin pressing against the form.

5. It goes upon the market with assurances from many practical printers, that warrant its proprietors in saying it is the most complete, most durable and most economical quoin ever made.

Correspondence solicited with jobbers and travelers in supplies, to whom liberal inducements are offered.

Prices are as follows: No. 1 quoin, \$3.00 per dozen; No. 2, \$4.00 per dozen; wrenches, 50 cents each. John McConnell & Co., of Erie, Pa., are the inventors, and the general manager of the western agency is P. D. Hoyt, 71 Wabash avenue, Chicago.

INKS for writing on metallic surfaces may be made as follows: (1) One part verdigris (acetate of copper), 1 part sal-ammoniac, $\frac{1}{2}$ part soot, 10 parts water, stir well. Write with a quill. (2) One grain sulphate of copper dissolved in 20 grains water; add 2 drops hydro-chloric acid, and enough solution of gum arabic to make the ink adhesive. To make the writing appear at once, add a little pyrogalllic acid. Write with a copper pen. (3) Dissolve 2 ozs. shellac in 1 pint alcohol, filter through chalk, and mix with finest lampblack; forms a jet black lustreless ink, insoluble in water. (4) Take $\frac{1}{2}$ lb. of nitric acid and 1 oz. muriatic acid, mix and shake well together, and then it is ready for use. Cover the place you wish to mark with melted bees-wax; when cold write your inscription plainly in the wax clear to the metal with a sharp instrument. Then apply the mixed acids, with a feather, carefully filling each letter. Let it remain one to ten hours, according to the appearance desired; then wash and remove the wax. (5) Make a saturated solution of sulphate of copper in gum water. Write with a quill pen. When quite dry give the labels a coat of white hard varnish, the labels being slightly warmed before application. (6) Chloride of platinum $\frac{1}{4}$ oz.; soft water 1 pint; to be kept in glass and used with a quill pen. (7) Verdigris, sal-ammoniac and levigated lampblack, of each $\frac{1}{2}$ oz.; common vinegar $\frac{1}{4}$ pint; mix thoroughly; (6) is the better, but rather expensive; both will do for zinc, iron or steel.

H. O. SH
WM. JOH

that is at first, Come and who never will let

CHAS. BURNOWS DESIGNER AND COMPOSITOR, SCHENECTADY, N. Y.

SPECIMENS FOR COMPETITION.

H. O. SHEPARD.
WM. JOHNSTON.

CHICAGO,

188

Mc

SHEPARD & JOHNSTON
140-146 MONROE STREET,
TAYLOR BUILDING.

Dr. **Printers**

Fine Job Work a Specialty.

TELEPHONE 555

COMPOSITOR—A. R. ALLEXON, WITH SHEPARD & JOHNSTON, CHICAGO.

him take of the water of life freely.

Monday Evenings **WELCOME.** From 7:45 to 8:30.

PRESBYTERIAN CHURCH
Schenectady, N. Y.

Young People's Association
FIRST
Prayer Meeting Subjects.

The Spirit and the Bride say, Come; and let him

1884.

that heareth say, Come; and let him

tel 'tillm jeevoooww pue / amoj 'tsttjts si tetij

CHAS. BURNOWS DESIGNER AND COMPOSITOR, SCHENECTADY, N. Y.

HAIGHT & DUDLEY

PRINTERS

POUGHKEEPSIE, NEW YORK

A. V. HAIGHT, POUGHKEEPSIE, N. Y.

BUSINESS OUTLOOK.

CORRECTED FROM MONTH TO MONTH.

Chicago.—State of trade, very bad; prospects, far from encouraging; composition on morning papers, 40 cents; evening, 37 cents; bookwork, 37 cents; job printers, per week, \$18. More printers out of employment than there have been for years.

Cincinnati.—State of trade, still very dull; prospects, not encouraging; composition on morning papers, 40 cents; evening, 37 cents; bookwork, 40 cents; job printers, per week, \$18. No difficulty, but printers have been requested to steer clear of this city for some months past.

Cleveland.—State of trade, dull; prospects, equally dull; composition on morning papers, 35 cents; evening, 33½ cents; bookwork, 35 cents; job printers, per week, \$12 to \$14. No difficulty, but this city is overrun with printers.

Dayton.—State of trade, fair; prospects, not very bright; composition on morning papers, 35 cents; evening, 32 cents; bookwork, 32 to 35 cents; job printers, per week, \$15. More than enough of printers here to supply the demand.

Detroit.—State of trade, poor; prospects, discouraging; composition on evening papers, 32 cents; bookwork, 33½ cents; job printers, per week, \$14. Our advice to the craft is, by all means keep away from Detroit.

Grand Rapids.—State of trade, good; prospects, good; composition on morning papers, 30 cents; evening, 28 cents; bookwork, \$13 per week; job printers, per week, \$13. Work is always good here, but at present there are plenty of men to do it.

Indianapolis.—State of trade, very dull; prospects, poor; composition on morning papers, 35 cents; evening, 33 cents; bookwork, 35 cents; job printers, per week, \$15. There is an existing difficulty. The proprietors of the *Journal* are failing to keep their agreement with the union. Advice to craft: Keep away, as there are more men here than there is work for.

Joliet.—State of trade, fair; prospects, not the best; composition on morning papers, 30 cents; evening, 27 cents; bookwork, 27 cents; job printers, per week, \$12 to \$15. Plenty resident subs in town.

New Haven.—State of trade, dull; prospects, not encouraging; composition on morning papers, 40 cents; evening, 35 cents; bookwork, 35 cents. Our advice is, keep away from New Haven, as home printers are idle and tourists have to walk out. There is a strike on the *Morning News*, with gloomy prospects for gaining the same.

New Orleans.—State of trade, poor; prospects, very poor; composition on morning papers, 50 cents; evening, 45 cents; bookwork, 45 cents; job printers, per week, \$20. The job office of J. S. Rivers has been ratted on account of employing too many boys.

Omaha.—State of trade, extremely dull; prospects, bad; composition on morning papers, 33 cents; evening, 30 cents; bookwork, 30 cents; job printers, per week, \$15. We advise printers to keep away, as there are too many here already.

Ottumwa.—State of trade, bad; prospects, very poor; composition on morning papers, 25 cents; job printers, per week, \$12. We are on a strike for 30 cents, and union men are barred from the *Democrat*.

Philadelphia.—State of trade, book, very dull; newspaper, very good; composition on morning papers, 40 cents; evening, 40 cents; bookwork, 35 and 40 cents; job printers, per week, \$16. Rats are working on *The Press*, *North American* and *Bulletin* offices, and one-third of the men here are out of work.

Pittsburg.—State of trade, very dull; prospects, far from cheering; composition on morning papers, 40 cents; evening, 35 cents; bookwork, 35 cents; job printers, per week, \$15. Pittsburg is at present overrun with printers, and as there is very little job work prospects look anything but bright, and we fear it may continue indefinitely.

Rochester.—State of trade may be characterized as rather dull, with prospects not so good as previous years at this season of the year; composition on morning papers, 33 cents; evening, 30 cents; bookwork, 33 cents; job printers, per week, \$14 (minimum); ad. and com. cases, \$17.25 to \$20 per week. There are no vacancies, and the daily papers have a surplus of subs. There is no existing difficulty, the one referred to in last issue on *Sunday Morning Herald* having been adjusted. A conference between employers and employees resulted in the adoption of the old scale. While, perhaps, disappointing to many that the proposed new scale was not adopted, in view of the fact that a ten per cent reduction was anticipated by employers, it is, perhaps, well to secure the old scale.

St. Paul.—State of trade, dull; prospects, better; composition on morning papers, 38 cents; evening, 35 cents; bookwork, per week, \$15; job printers, per week, \$15. Our advice is, stay where you are. If you come to St. Paul it may be worse.

Springfield, Ill.—State of trade, very dull; prospects, very poor; composition on morning papers, 33½ cents; evening, 30 cents; bookwork, 30 cents; job printers, per week, \$15. We are now wholly unable to find employment for our resident printers, a large number of them being idle, with poor prospects for obtaining work. The printing office of H. W. Rokker has been "ratted," because the employees engaged in a sub-contract. The action of the union has been sustained by the president of the I. T. U.

Toronto.—State of trade, still very dull; prospects, not encouraging; composition on morning papers, 30 cents; evening, 28 cents; bookwork, 33½ cents; job printers, per week, \$11. There is no use in printers coming here, as large numbers are walking the streets. The *Mail* still holds out, and the Trades Council is boycotting.

Washington.—State of trade, medium; prospects, something better; composition on morning papers, 40 cents; evening, 40 cents. There are quite a number of unemployed men here, but of course after congress meets business will improve.

Wilkesbarre.—State of trade, medium; prospects, very good; composition on morning papers, 30 cents; evening, 25 cents; bookwork, 30 cents; job printers, per week, \$13 to \$14. Our advice is, keep away until after our union gets its new scale of prices in working order. A new daily morning paper has been started this month, but there are plenty of hands to get it out.

Wilmington, Del.—State of trade, very dull; prospects, discouraging; composition on Sunday paper, 35 cents; evening, 25 cents; bookwork, 20 and 25 cents; job printers, per week, \$10 to \$12. The compositors on *Morning News* struck against a reduction of composition from 30 to 25 cents. The proprietors insisted on the reduction, and the compositors walked out. The prospect for recovering the paper is bad.

Wichita.—State of trade, dull, with prospects to correspond. We have one morning paper, upon which compositors receive 35 cents, one evening paper, upon which all composition is done by the week, wages \$12 to \$15; job printers, per week, \$13 to \$15. No scarcity of printers. No union.

PRESSMEN'S REPORT.

Pittsburg.—State of trade, very slow; prospects favorable. Pressmen are advised to stay away from this city for the present.

FOR SALE.—At a bargain—The *Stanberry News*, established 1879. Located in thriving city of 3,000; division station on Wabash railroad; rich farming country; finest Normal School in state; paper on paying basis; good list; good advertising and job patronage. All at home print power press. Complete office. Price \$1,500 for all or \$500 for one-half interest. Satisfactory reasons for selling. Office worth \$2,500. Address *News*, Stanberry, Mo.

OFFICE OF "PRINTERS' CABINET."

"FEERLESS" ROLLER COMPOSITION.

S. P. ROUNDS, Jr. & CO.,

PRINTERS'

Furnishing Warehouse,

ELECTROTYPING AND STEREOTYPING,

Nos. 186 and 188 Fifth Avenue, CHICAGO.

Roller Composition, either in Bulk or Rollers cast to suit press. Estimates cheerfully furnished.

S. P. ROUNDS, JR.

A. WAGENER.

THOMAS FOX, Pres't & Treas.

GEO. N. FRIEND, Vice-Pres't.
GEO. B. FOX, Secretary.

Friend & Fox Paper Co.

MANUFACTURERS OF AND DEALERS IN FINE

BOOK, COVER, NEWS, WRAPPING,
ROOFING AND CARPET FELT.

CINCINNATI AND CHICAGO.

153 WABASH AVENUE, CHICAGO.

Lockland Mills, Crescent Mills, Rialto Mills.

—THE—

Cincinnati Type Foundry,

MANUFACTURERS OF

TYPE, PRESSES,

AND PRINTERS' TOOLS OF ALL KINDS.

ALL GOODS FIRST-CLASS, AND AT PRICES
TO SUIT THE TIMES.

Send for Specimens and Special Prices. CHAS. WELLS, Treas.

201 VINE ST., CINCINNATI, O.

VANDEBURGH, WELLS & CO.

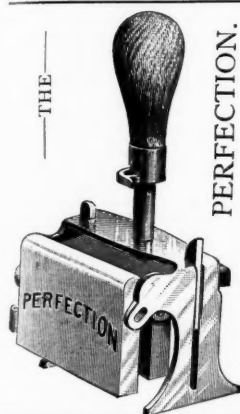
TYPE AND BORDERS, Presses and Materials,

WOOD TYPE, CABINETS, STANDS, ETC.

TURKEY BOXWOOD AND OTHER ENGRAVERS' MATERIALS
AND WOODS.PRINTERS' "STRONG SLAT" CASES.
(TRADE MARK)110 Fulton and 16 & 18 Dutch Streets,
NEW YORK.

FACTORY: PATERSON, N. J.

N.B.—MACHINISTS' PATTERN LETTERS.



TENNEY & REESE,

WHOLESALE AND RETAIL DEALERS IN
PATENT SELF-INKING
STAMPS—
RUBBER STAMPS, SEALS,
*Patent Rubber-Faced Type, Pencil and
Pocket Stamps—
And Everything in the Stamp Line.*

SEND FOR PRICE LIST.

70 MADISON ST., CHICAGO.

SUPERIOR PRINTING INKS,

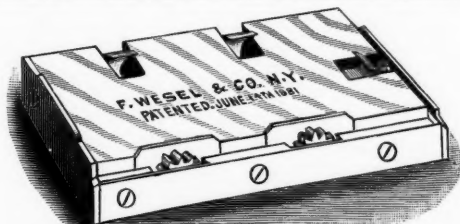
MADE BY

THE ULLMANN & PHILPOTT MFG. CO.

Nos. 56 and 58 Merwin, Corner of West Street,
CLEVELAND, O.

FOR SALE BY

GUSTAV HINSTORFF, 48 Dearborn St., Chicago, Ill.
ST. LOUIS TYPE FOUNDRY, Third and Vine Sts., St. Louis, Mo.
KANSAS CITY PAPER CO., 420 West Fifth St., Kansas City, Mo.
ROBERT ROWELL, Third Ave. and Market St., Louisville, Ky.
H. B. PARKER, Cass and Congress Sts., Detroit, Mich.
CLEVELAND PAPER CO., 128 St. Clair St., Cleveland, O.



IMPROVED PLAIN OLD STYLE BLOCK WITH PATENT END HOOK.

The above cut represents our PATENT STEREOTYPE BLOCK which is well known all over the United States and Canada. During the year 1883 we furnished 2828 blocks.

F. WESEL & CO.

Manufacturers of Brass and Steel Rules, Brass Dashes, Patent Stereotype Blocks, Brass Galleys, Galley Racks, Proof Presses, Proof Rollers, Wrought Iron Chases, McGill's Patent Chases, etc. etc.

11 Spruce Street.

NEW YORK.

CARTER & BARNARD, BLACK AND COLORED PRINTING INK MAKERS,

116 Monroe St.
CHICAGO.We are the only firm in the city who
manufacture a full line of

Black and Colored Inks.

Prouty Presses.
Central Type Foundry.

SPECIAL AGENTS

Holly Wood Type.
Boston Type Foundry.

THE UNION TYPE FOUNDRY, MANUFACTURERS OF Type and Brass Rule, PRESSES AND PRINTERS' SUPPLIES.

54 and 56 Franklin Street,

TELEPHONE 1040.

CHICAGO.

A complete stock of Boston and Central Type Foundries' Beautiful Faces constantly on hand.

POPULAR BECAUSE RELIABLE.

The attention of Printers is directed to the following specialties, which HAVE NO RIVAL and are ABSOLUTELY PERFECT.

ELM CITY COUNTER.

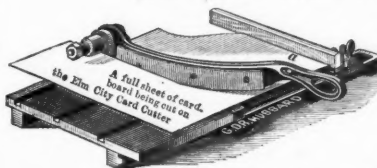


Saves both stock and time. Counts 100,000 and repeats automatically. Can be attached to any kind of machine where a direct horizontal or vertical movement is to be obtained.

Price, \$10.00.

No. 2, counting 10,000, \$8.00.

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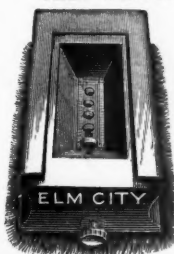
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38x52 Campbell, complete press, steam fixtures, 2-roller.....	900
28x32 Campbell, complete press, steam fixtures, 6-roller, springs....	1000
24x29 Campbell, complete press, with steam, 2-roller, springs.....	850
31x46 Campbell, complete press, steam fixtures.....	1200
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delivery, spiral springs, 2-roller.....	1200
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2-roller.....	1500
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2-roller.....	1300
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12x17 Chromatic.....	175
12x17 Chromatic.....	175
13x19 Gordon, old style, with throw-off and steam.....	225
13x19 Globe.....	200
10x14½ Novelty.....	18
10x15 Gordon, old style.....	200
10x15 Gordon, with treadle and crank.....	200
13x19 Chromatic, with crank.....	200
13x19 Chromatic, steam.....	215
13x19 Globe, with fountain.....	215
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10x15 Globe.....	175
10x15 Globe Job Press, with fountain.....	200
10x15 Globe Job Press.....	175
10x15 Standard Job Press.....	175
10x15 Globe Job Press.....	175
10x15 Favorite.....	175
11x16 Star Lever.....	75
10x12 Alligator, crank.....	75
10x15 Lever Job Press.....	60
10x14½ Novelty.....	18
9x16 Nonpareil, old style.....	175
10x15 Gordon, new style.....	225
10x15 Gordon, old style.....	200
9x13 Gordon, old style, in frame, with fountain.....	125
8x12 National Jobber.....	100
8x12 Improved National Jobber.....	115
8x12 Young America.....	125
8x12 Globe.....	100
8x12 Empire.....	125
8x12 Canfield upright.....	125
8x12 Young America old style.....	115
8x12 National.....	125
8x12 Gordon new style.....	175
7x11 Gordon Franklin.....	125
6x12 Nonpareil.....	100
6x10 Liberty.....	100
6x10 Amateur, treadle.....	75
3½x5½ Model Lever.....	12
6x9 Model Lever.....	25
6x10 Excelsior Lever.....	25
7½x11 Star Lever, with treadle, iron frame.....	50
5½x10 Eclipse.....	65
7x11 Favorite.....	65
5½x8½ Favorite.....	50
7x11 Star, side treadle.....	60
7x11 Gordon Franklin.....	125
6x9½ Young America.....	75
7½x11 Gordon, frame all around.....	100
7x10 Ruggles.....	60
6x10 Nonpareil.....	100
7x10 Model Rotary.....	75

7x12 Nonpareil, new style.....	\$125
7x11 Liberty.....	125
6x10 Model Lever.....	25
6x9 Columbia Rotary.....	65
7x11 Gordon Franklin.....	125
5x7½ Columbian Lever Press.....	20
Hoe Card and Ticket Press.....	275

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7-col. Washington.....	175
7-col. Cincinnati Washington.....	175
7-col. Washington, with rolling bed.....	200
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6-col. Army Press.....	45
Cap Foster Press.....	40
8-col. Washington.....	200
6-col. Army Press.....	45
6-col. Army Press.....	45
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6-col. Smith.....	125
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8-col. Washington.....	200
7-col. Washington.....	175
7-col. Washington.....	175
8-col. Washington.....	200
8-col. Washington.....	200

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30-inch Wisconsin, Improved.....	\$140
32½-inch Hercules, hand lever.....	140
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28-inch Plow Cutter, iron frame.....	30
28-inch Plow Cutter, wood frame.....	25
28-inch Plow (Hoe) Cutter, wood frame.....	25
38-inch Plow Cutter, iron frame.....	40
30-inch Riehl Cutter.....	125
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32-inch Acme, hand and steam fixtures.....	250

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26-inch Ruggles, iron frame.....	\$18
26-inch Ruggles, iron frame.....	18
30-inch Ruggles, iron frame.....	20
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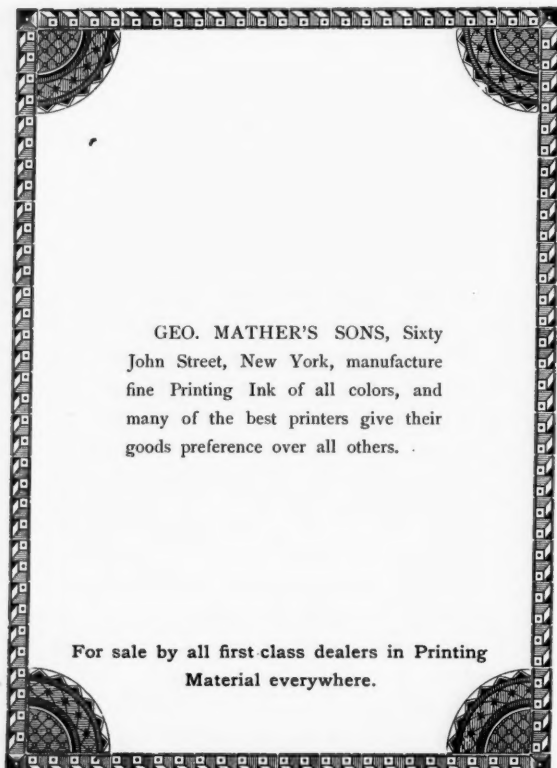
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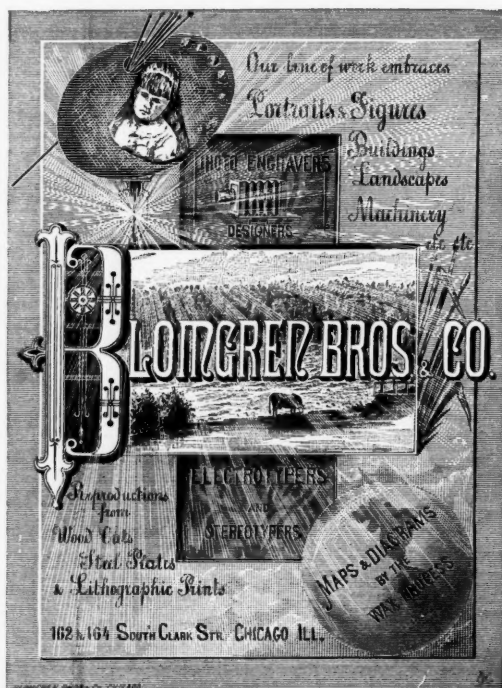
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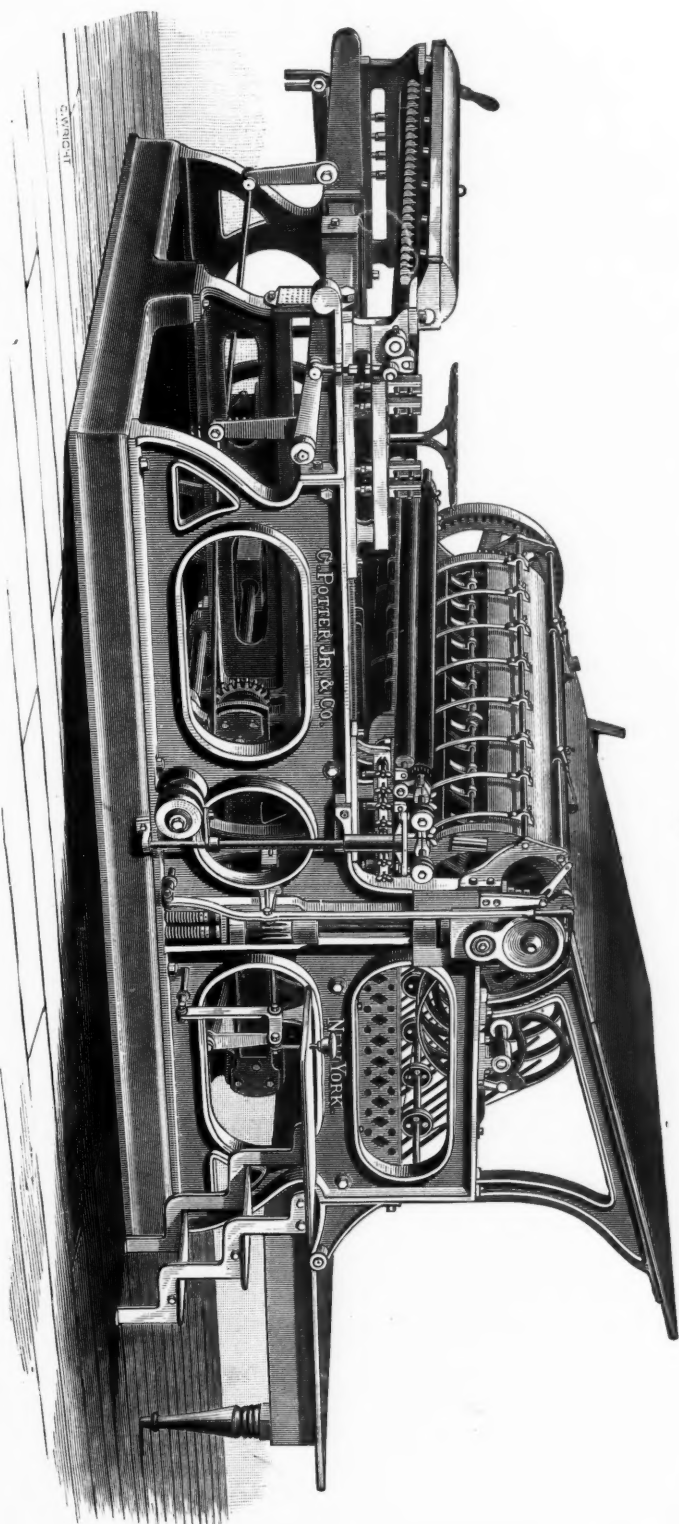
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3	29 x 41 in.	27 x 39 in.	6	5,000	5	37 x 53 in.	35 x 50 in.	6	6,750

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3	16 ft.	9 ft. 10 in.	7 ft.	3	About 9½ tons.	1100	¾
3½	16 ft. 5 in.	10 ft.	7 ft.	3½	About 10 tons.	1100	¾
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